

CASE

NUMBER:

99-070

filed 7.30.99

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

JUL 9 1999

IN THE MATTER OF:

**RATE APPLICATION OF WESTERN KENTUCKY
GAS COMPANY**

Case No. 99-070

**PETITION FOR CONFIDENTIALITY OF CERTAIN INFORMATION
PROVIDED IN RESPONSE TO THE STAFF'S
INITIAL REQUEST FOR INFORMATION**

Comes now Western Kentucky Gas Company ("Western"), pursuant to 807 KAR 5:001, Section 7, and all other applicable law, and for its Petition for Confidentiality, states as follows:

In Item No. 5 of the Staff's initial Request for Information, Western was requested to provide the calculations supporting the determination that Western has experienced an \$800,000 decline in lost industrial margins. These calculations are set forth in the attached "Response to PSC DR 1, DR Item 5", which is marked as Exhibit A.

The information contained in Exhibit A reveals volume and discount levels for each special contract industrial customer for whom a discount has been negotiated, disclosure of all of which is necessary in order to provide the calculations requested by the Commission.

Pursuant to KRS 61.878(1)(c) the following documents are eligible for confidential

treatment:

“Upon and after July 15, 1992, records confidentially disclosed to an agency or required by an agency to be disclosed to it, generally recognized as confidential or proprietary which if openly disclosed would permit an unfair commercial advantage to competitors of the entity that disclosed the records ---”.

This is the same standard adopted by the Commission pursuant to 807 KAR 5:0001, Section 7. Company specific details concerning volumes and confidentially negotiated discounts with private enterprises are generally recognized as confidential and proprietary. Disclosure of details pertaining to a particular customer's volume and discount, are likely to cause substantial competitive harm to Western. Knowledge of these facts will provide Western's competitors with a substantial advantage in future business negotiations with Western's customers. Western's competitors would have a clear advantage in competing for these customers since knowledge of an existing Western discount would enable them to slightly undercut Western's charges. On the other hand, Western's unregulated competitors are not required to make public similar information.

Accordingly, the value of the information is derived by not being readily ascertainable by Western's competitors who would have a clear economic advantage upon disclosure. Negotiations concerning the discounts were maintained with strict confidentiality. None of this information is posted or otherwise generally made available within the company or without. Only those employees of Western who have a legitimate need to know have knowledge of the information contained in Exhibit A.

Additionally, disclosure of this information would put Western at a disadvantage in future negotiations of special contracts with other industrial customers. There would be little room for

room for bargaining when a potential customer knows exactly what discounts Western has negotiated with other industrial customers. This likewise would put Western at an unfair commercial disadvantage.

WHEREFORE, Western respectfully request that the attached be treated a confidential. One copy of the attached response has been submitted with the confidential portions highlighted for review and consideration by the Commission. Redacted copies of these documents have been submitted with Western's filing.

Respectfully submitted this 30 day of July, 1999.

Douglas Walther
Atmos Energy Corporation
P.O. Box 650205
Dallas, TX 75265

SHEFFER - HUTCHINSON - KINNEY
Mark R. Hutchinson
115 E. Second St.
Owensboro, KY 42303

John N. Hughes
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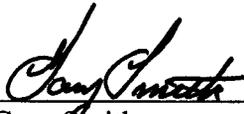
Attorneys for Western
Kentucky Gas Company

By: 

VERIFICATION

I, Gary Smith, being duly sworn under oath, state that I am Vice President of Marketing of Western Kentucky Gas Company, and that the foregoing statements are true of my own

knowledge except as to those matters therein stated on information and belief, and as to those matters I believe them to be true.



Gary Smith

STATE OF KENTUCKY
COUNTY OF DAVIESS

SUBSCRIBED AND SWORN to before me by Gary Smith on this the 29th day of July, 1999.



Notary Public - State of Ky. at Large
My Commission: Sept 26, 2001

CERTIFICATE OF SERVICE

I hereby certify that on the 30th day of July, 1999, the original of this Petition, together with fifteen (15) copies, was filed with the Kentucky Public Service Commission, 730 Schenkel Lane, Frankfort, Kentucky 40602, and a true copy thereof mailed by first class mail to the following named person:

Hon. David Spenard
Assistant Attorney General
Office of Rate Intervention
1024 Capitol Center Drive
Frankfort, Kentucky 40601



Mark R. Hutchinson

JOHN N. HUGHES
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July 30, 1999

Ms. Helen Helton
Executive Director
Kentucky Public Service Commission
730 Schenkel Lane
Frankfort, KY 40602

RECEIVED

JUL 30 1999

PUBLIC SERVICE
COMMISSION

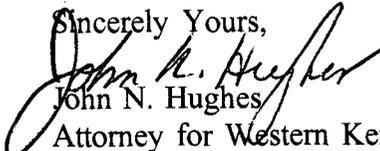
Re: Case No. 99-070

Dear Ms. Helton:

Please file the Response of Western Kentucky Gas Company to the Commission's First Request for Information and Petition for Confidentiality. Item 47f is not completed and is expected to be filed the week of August 9.

Thank you for your assistance, and if there are any questions about this matter or if additional information is needed, please contact me.

Sincerely Yours,


John N. Hughes
Attorney for Western Kentucky
Gas Company

cc: Attorney General

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

FILED
JUL 30 1999
PUBLIC SERVICE
COMMISSION

In the Matter of:

THE APPLICATION OF WESTERN)
KENTUCKY GAS COMPANY FOR)
AN ADJUSTMENT OF RATES)

CASE NO. 99-070

O R D E R

IT IS ORDERED that Western Kentucky Gas Company ("Western") shall file with the Commission the original and 15 copies of the following information, with a copy to all parties of record. The information requested herein is due no later than July 30, 1999. Each copy of the data requested should be placed in a bound volume with each item tabbed. When a number of sheets are required for an item, each sheet should be appropriately indexed, for example, Item 1(a), Sheet 2 of 6. Include with each response the name of the witness who will be responsible for responding to questions relating to the information provided. Careful attention should be given to copied material to ensure that it is legible. Where information requested herein has been provided along with the original application, in the format requested herein, reference may be made to the specific location of said information in responding to this information request. When applicable, the information requested herein should be provided for total company operations and jurisdictional operations, separately.

1. Provide an organization chart for Atmos Energy Corporation ("Atmos") as of June 1, 1999. The chart should show all regulated utility divisions and non-regulated businesses.

2. With the exception of Western, provide the following information for each of the regulated utility divisions:

- a. The state jurisdictions in which the division operates.
- b. The year of the division's last completed general rate case proceeding. If the division is currently involved in a general rate case, indicate when that proceeding is expected to be completed.
- c. The authorized rate of return on common equity awarded or authorized in the last completed general rate case proceeding. If the division is currently involved in a general rate case, indicate the rate of return on common equity requested by the division.

3. Western's last general rate case was Case No. 95-010.¹ In the August 10, 1995 Order in that case, the Commission expressed its concern about Western's practices of funding only a portion of its other post-retirement employee benefits ("OPEBs") and of funding internally rather than using a protected fund administered by a third party. Describe Western's current practice with regard to these two issues. In addition, provide justification for Western's current level of OPEB funding.

4. In the October 20, 1995 Order, which adopted the October 9, 1995 Settlement Agreement, the Commission acknowledged Western's agreement to perform a new depreciation study no later than its next general rate application. However, the

¹ Case No. 95-010, An Adjustment of Rates of Western Kentucky Gas Company, Orders dated August 10, 1995 and October 20, 1995.

October 20, 1995 Order reminded Western that the Commission's concerns about its depreciation study, expressed in the August 10, 1995 Order, would remain pertinent for the review of the new depreciation study.

a. Explain in detail how the concerns expressed in the August 10, 1995 and October 20, 1995 Orders have been addressed by the September 30, 1997 depreciation study filed with Western's application.

b. Refer to the September 30, 1997 depreciation study filed with the application. Provide the calculations for the net salvage rates with details and supporting documentation which support the change, to a negative 150 percent, in the salvage rate for Account 380, Services.

5. Refer to the Application, Volume 1 of 10, Tab 1, Item 5. Provide the calculations that support Western's determination that it has experienced an \$800,000 decline in lost industrial margins and \$1,600,000 in lost margins due to energy conservation and declining customer usage. Include a detailed explanation as to how Western identified these specific causes.

6. Refer to the Application, Volume 2 of 10, Tab 1, the Testimony of Conrad E. Gruber. On pages 12 through 18 of the testimony is a discussion of Western's efficiency and productivity improvements. Explain in detail how the benefits of these efficiency and productivity improvements have been incorporated into Western's forecasted period. Include a dollar quantification of the improvements and identify where this quantification has been shown in the forecasted period.

7. Refer to the Application, Volume 2 of 10, Tab 4, the Testimony of Betty L. Adams. On page 5 of the testimony it is stated that Western's O&M budget was

converted into National Association of Regulatory Utility Commissioners ("NARUC") accounts. Provide a detailed explanation as to why Western utilized the NARUC accounts rather than following the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission.

8. On page 10 of the Adams Testimony is a discussion of changes in Western's operational budget due to the implementation of the Shared Services approach. For each change listed on page 10, compare in dollar amounts the changes in Western's O&M budget with the changes in expenses from the Shared Services program. If the increase in Shared Services expense exceeded the reduction in Western's O&M budget for a particular change, explain in detail why it was cost effective to make the change.

9. Refer to the Application, Volume 2 of 10, Tab 5, the Testimony of David H. Doggette, concerning Western's capital budgets.

a. Is it correct that none of the capital budgets submitted in Western's application reflect Western's normal "bottom up" development approach?

b. Has Western prepared its capital budgets for FY2001 through FY2003, following the "bottom up" approach, utilizing the new Oracle accounting system? If yes, provide the FY 2001 through FY 2003 capital budgets, using the "bottom up" approach, in a format similar to that shown in Exhibit DHD-1.

c. Has Western performed any analysis or review to determine if using a "FY 1999 baseline" approach for its capital budgeting produces a similar result as the "bottom up" approach? If yes, provide copies of that analysis or review. If no, explain why such an analysis or review has not been performed.

d. Have the FY 2000 and FY 2001 capital budgets filed in this proceeding been entered into the Atmos Capital Budget Gathering System? If no, explain in detail why this has not occurred.

e. Provide copies of the approved FY 2000 and FY 2001 capital budgets within 10 days of their approval by Atmos's Board of Directors. Explain in detail all differences between the approved FY 2000 and FY 2001 capital budgets and those submitted with the application.

f. Provide the capital budgets for the Information Technology strategy and other Shared Services projects, for the FY 2000 through FY 2003 periods. This information should show the amounts for the total budget, as well as Western's forecasted investment, for each fiscal year. Explain in detail how Western's forecasted investment was determined.

10. Refer to the Application, Volume 2 of 10, Tab 5, Exhibit DHD-1, page 2 of 6. Provide the workpapers and assumptions used to determine that the projected overhead rate should be 50 percent and the projected increase in maintenance and improvements should be 36.25 percent for the FY 2000 capital budget. Include an explanation as to how these determinations were made.

11. Refer to the Application, Volume 2 of 10, Tab 6, the Testimony of Donald P. Burman. On pages 6 and 7 of the testimony is a discussion of Western's accounting for pension expense.

a. Provide the balances of Western's pension assets and obligations shown on its balance sheet as of March 31, 1999, as well as for the base period and

forecasted period. Include the account numbers and titles used to record these assets and obligations.

b. Has Western included its pension assets and obligations in its calculation of its rate base? If so, provide the reference to the appropriate schedules and workpapers that disclose this inclusion.

12. Provide the actual capital ratios for Atmos as of June 30, 1999.

13. Refer to the Application, Volume 2 of 10, Tab 7, the Testimony of John P. Reddy. On page 4 of the testimony, it is stated that Atmos's objective is to maintain a capital structure comprised of approximately 50 percent equity and 50 percent debt. However, on page 6 of the Reddy Testimony, the summary of Atmos's five-year financial plan for FY 2001 through FY 2003 shows a capital structure comprised of equity ranging between 53 percent and 61.9 percent.

a. Explain why Atmos's five-year financial plan presents capital structures that are significantly different than Atmos's expressed capital structure objectives.

b. The equity portion of Atmos's capital structure as of March 31, 1999 was 44.19 percent. The equity portion shown on page 6 of the Reddy Testimony shows a forecasted equity component of 49.8 percent for FY 2000. Explain in detail why it is reasonable to expect such an improvement in the equity in less than a two-year time frame.

14. Refer to pages 6 and 7 of the Reddy Testimony. For each of the assumptions listed below, indicate how reasonable that assumption is for Atmos. Include any analyses, studies, or other documentation that support these assumptions.

- a. A return to normal long-term weather patterns for the other Atmos utility divisions beginning in FY 2000.
- b. The issuance of \$26 million of new equity in November 1999.
- c. Raising \$20 million of new equity annually through stock plans.
- d. No significant acquisitions. Explain how this assumption is not in conflict with the statements contained on page 5 of the 1998 Atmos Annual Report to shareholders.
- e. Cash flow from depreciation will fund ongoing capital spending requirements.
- f. No new long-term debt issues.

15. Refer to the Reddy Testimony, the attachment titled "FR10(9)(h)11," Sheets 1 and 2 of 3. Explain why each of the assumptions listed on these schedules is reasonable. Include any analyses, studies, or other documentation that support these assumptions.

16. Refer to the Application, Volume 2 of 10, Tab 12, the Testimony of Michael Marks. On page 4 of the testimony it is stated "Central to the program are two important provisions of the agreement between Western and the Commission." In the August 10, 1995 Order in Case No. 95-010, the Commission stated:

Thus, the Settlement merely establishes a framework for developing a program which will qualify for rate recovery under KRS 278.285. No specific programs or related cost recovery mechanism have been included. Therefore, the Commission makes no decision or findings of fact related to any portion of the DSM provisions included in the Settlement.²

² Case No. 95-010, August 10, 1995 Order, at 4.

In light of the Commission's statement in Case No. 95-010, explain in detail what agreement is being referenced in Mr. Marks Testimony on page 4.

17. Refer to the Marks Testimony, page 4. Concerning the Western Demand Side Management ("DSM") Collaborative:

a. Identify the members of the Western DSM Collaborative at its inception and as of June 30, 1999.

b. Provide copies of the bylaws or other documents that govern the operation of the Western DSM Collaborative.

c. Identify the chairperson of the Western DSM Collaborative as of June 30, 1999.

18. Refer to the Marks Testimony, page 8. For each of the measures ultimately selected for inclusion in the WKG CARES program, provide the results of the following DSM benefit cost test:

a. Total Resource Cost ("TRC").

b. Utility Cost Test ("UCT").

c. Ratepayer Impact Measure ("RIM").

d. Participant Test ("PT").

19. Refer to the Marks Testimony, page 8. It is stated that the TRC test measures the costs and benefits of a conservation measure from the broadest perspective as it represents the net benefit to society. Isn't it correct that the TRC calculates the net impact on a utility and its customer base as a whole, instead of as a net benefit to society? If no, provide documentation to support the contention that the focus of the TRC is the net benefit to society.

20. Concerning the process and impact evaluations of WKG CARES:

a. Provide copies of the written process and impact evaluation reports. If no written report was provided, explain in detail why not.

b. Explain why the Applied Energy Group, Inc. ("AEG") was retained to perform these evaluations, given Mr. Marks association with AEG.

c. Explain in detail why actual customer savings were not developed as part of the impact evaluation.

d. Explain how the impacts of the weather experienced during the evaluation period were taken into consideration when pre- and post-treatment consumption values were determined.

e. Provide the workpapers showing the calculation of the TRC, UCT, RIM, and PT values for the impact evaluation.

f. Explain why the Societal Test is referenced on page 13 of the Marks Testimony instead of the TRC.

g. Provide the calculations and assumptions used to determine the environmental externality adder reflected in the Societal Test. Include an explanation as to why it was believed an environmental externality adder should have been included in the analysis.

h. Did the calculation of the TRC during the impact evaluation include a determination of Western's lost revenues associated with WKG CARES? If no, explain why the exclusion of lost revenues would not skew the results of the TRC.

21. On page 13 of the Marks Testimony is the statement that Western is not attempting to recover the revenue erosion caused by WKG CARES. However,

throughout its application, Western has cited one of the reasons for the proposed revenue increase has been the impact of residential energy conservation efforts. Is it correct that Western is attempting to recover these lost revenues through its general rate increase, rather than through the DSM tariff? Explain the response.

22. On page 14 of the Marks Testimony is a discussion of the benefit to Western's uncollectible accounts as a result of WKG CARES. If the actual impact on uncollectible accounts was not determined as part of the impact evaluation, explain in detail the basis for the assumption that uncollectible accounts were impacted favorably by WKG CARES.

23. Provide copies of all program materials associated with WKG CARES, including the program parameters established regarding allowable program measures.

24. Provide the following information concerning WKG CARES:

a. Describe the specific changes in customers' consumption patterns that Western is attempting to influence through WKG CARES.

b. Indicate whether WKG CARES is consistent with Western's most recent long-range integrated resource plan ("IRP"). Include copies of Western's most recent IRP.

c. Does WKG CARES result in any unreasonable prejudice or disadvantage to any class of customers? Explain the response.

d. Describe the extent to which WKG CARES programs are available, affordable, and useful to all customers.

25. Given the provisions of KRS 278.285, explain in detail why Western waited until the filing of this rate proceeding to recover the costs for WKG CARES, which began in 1996.

26. On page 18 of the Marks Testimony is the statement that Western is seeking to recover the costs associated with the 3-year pilot program which was approved by the Commission in the October 20, 1995 Order in Case No. 95-010. The October 20, 1995 Order approving the October 9, 1995 Settlement in Case No. 95-010 specifically stated that:

In all other respects this proposal mirrors the July 18, 1995 Settlement. Those provisions not addressed herein which were previously addressed and accepted in the Commission's Order of August 10, 1995 are approved without discussion.³

The pilot DSM program is not discussed in the October 20, 1995 Order, and the Commission stated in the August 10, 1995 Order that it made no decision or findings of fact related to the DSM provisions included in the Settlement. Explain in detail how Western has concluded that the Commission approved the 3-year pilot program.

27. Provide the following information concerning the costs associated with WKG CARES:

a. A schedule of the costs incurred during the 3-year pilot. These amounts should be identified using Western's account numbers, with account titles. The amounts should be presented in total and fiscal year amounts.

³ Case No. 95-010, October 20, 1995 Order, at 3.

b. Were the pilot costs expensed or deferred by Western? If deferred, provide the Western detailed account numbers utilized and the basis for Western assuming deferral was appropriate.

c. A schedule of the costs proposed for the 1999 – 2002 period. These amounts should be identified using Western's account numbers, with account titles. The amounts should be presented in total and fiscal year amounts.

28. Provide an analysis that examines the completion percentage for capital budget projects. The analysis should be by individual capital project, by year, for fiscal years 1994 through 1998. The analysis should show the completion percentage (actual expenditure to budget amount) for each project in each fiscal year.

29. Refer to the Application, Volume 3 of 10, Tab 1, titled "FR 10(9)(b)," page 3 of 6, the forecasted test year capital budget.

a. Does Western assume that all the capital projects included on this schedule will be completed and included in rate base by the end of the forecasted test year?

b. If yes to part (a), explain in detail the basis for this assumption and why it is reasonable.

c. If no to part (a), provide a schedule showing the amounts from the capital budget that Western included in the rate base by the end of the forecasted test year.

30. Refer to the Application, Volume 3 of 10, Tab 7, titled "FR 10(9)(h)2." Provide all the assumptions used by Western to determine the amounts shown for the

base year, the forecasted year, and the 2000 through 2003 fiscal years. Include an explanation as to why each assumption is reasonable.

31. Refer to the Application, Volume 3 of 10, Tab 7, titled "FR 10(9)(h)4." Provide a revision of this schedule that fixes the forecasted required rate of return at 9.97 percent for each year shown.

32. Concerning Western Kentucky Gas Resources, Inc. ("WKG Resources"):

- a. Describe the nature of WKG Resources' business operations.
- b. Indicate when WKG Resources was established.
- c. Indicate whether any of Western's assets, liabilities, capital, or personnel were transferred to WKG Resources.

33. Refer to the Application, Volume 3 of 10. Explain why the operating income amounts shown for the test year (January 2000 – December 2000) on the following schedules are not in agreement:

- a. Tab 3, titled "FR 10(9)(d)."
- b. Tab 7, titled "FR 10(9)(h)1 and FR 10(10)(i)1."
- c. Tab 7, titled "FR 10(9)(h)4."

34. Refer to the Application, Volume 9 of 10, Tab 2, titled "FR 10(9)(u)," Schedules 1 and 2. Provide the following information for Schedule 1 and Schedule 2:

- a. An explanation of how the amounts shown under the column titled "WKG \$" were determined. Include any supporting workpapers, assumptions, and other documentation.

b. The determination of the percentages shown under the column titled "WKG %." Include any supporting workpapers, assumptions, and other documentation.

c. For each Shared Service Unit listed on the schedule, an explanation of why the particular allocation methodology is reasonable for the allocation of the particular unit costs.

35. Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-2.2.

a. For both the base and forecasted periods, provide a schedule that links the plant additions shown on Schedule B-2.2 with the capital budget projects shown in Volume 3 of 10, Tab 1, Exhibit DHD-1.

b. For the base period, provide the workpapers, analysis, assumptions, and other documentation that support the amounts shown for "Retirements" and "Transfers/Reclassifications." Include a description for each retirement or transfer/reclassification shown on the schedule.

c. For the forecasted period, explain why Western assumed there would be no retirements. Include in the explanation a discussion of why such an assumption is reasonable.

36. Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-2.3, for both the base and forecasted periods.

a. Identify the business unit of Atmos referred to in the schedule as "Division 02 General Office."

b. Indicate whether the assignment of the Division 02 General Office plant is the result of a general allocation of plant by Atmos or whether Western contracted for these assets.

37. Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-3, for both the base and forecasted periods. For each of the plant accounts listed below, provide a detailed explanation as to why the accumulated depreciation exceeds the plant investment. Also explain why accumulated depreciation in excess of plant investment should be included in the calculation of Western's rate base.

- a. Account No. 331.00 – Production Gas Wells Equipment.
- b. Account No. 332.10 – Field Lines.
- c. Account No. 332.20 – Tributary Lines.
- d. Account No. 334.00 – Field Meas. & Reg. Station Equipment.
- e. Account No. 351.20 – Compression Station Equipment.
- f. Account No. 366.30 – Other Structures (Transmission Plant).
- g. Account No. 375.10 – Meas. & Reg. Station Equipment General.
- h. Account No. 399.00 – Other Tangible Property (base period only).
- i. Account No. 399.89 – Other Tangible Property – System Software (forecasted period only).

38. Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-3.2. Each of the accounts listed below is shown on Schedule B-3.2 as being fully depreciated. Explain why Western has included a 12-month depreciation expense for each of these accounts, and why it is reasonable to include depreciation expense for a plant account that is fully depreciated per the company's books.

- a. Account No. 331.00 – Production Gas Wells Equipment (base period only).
- b. Account No. 332.10 – Field Lines (base period only).
- c. Account No. 332.20 – Tributary Lines (base period only).
- d. Account No. 334.00 – Field Meas. & Reg. Station Equipment (base period only).
- e. Account No. 351.20 – Compression Station Equipment (base and forecasted periods).
- f. Account No. 366.30 – Other Structures (base and forecasted periods).
- g. Account No. 375.10 – Meas. & Reg. Station Equipment General (base and forecasted periods).

39. Refer to the Application, Volume 10 of 10, Tab 6, Schedule F-6. Provide the following information concerning the costs for the preparation of this case:

- a. A detailed schedule of costs incurred to date. Include the date of the transaction, check number or other document reference, the vendor, amount, a description of the services performed, and the account number in which the expenditure was recorded. Indicate any costs incurred for this case during the base year. Include copies of invoices received from the vendors.
- b. A detailed explanation of how the estimate shown on Schedule F-6 was determined, with all supporting workpapers and calculations.
- c. Monthly updates of the actual costs incurred during the course of this proceeding, in the manner prescribed above. Updates will be due on September 3,

1999 (Western's due date for responses to additional data requests), November 1, 1999 (due date for requests to Intervenors), and 30 days after the date of the public hearing or the due date for final briefs, whichever date is later.

40. Refer to the Application, Volume 10 of 10, Tab 8, Schedule H.

a. Explain how the Uncollectible Accounts Expense percentage was determined. Include all supporting workpapers, assumptions, and calculations.

b. Provide a schedule showing Western's actual Uncollectible Accounts Expense percentage for the base period and the five previous fiscal years. Include all supporting workpapers, assumptions, and calculations.

c. Explain how the PSC Fees percentage was determined. Include all supporting workpapers, assumptions, and calculations.

41. Refer to the Application, Volume 10 of 10, Tab 8, Schedule I-1. In light of the revenue increase requested by Western, explain why Schedule I-1 shows Western is forecasted to experience net losses beginning in fiscal year 2001.

42. Refer to the Application, Volume 10 of 10, Tab 15, Summary of Factors schedule, referenced as "WP Factors." Concerning the calculation of the Residual Factor:

a. Explain why the Residual Factor is based on calendar year 1998 data.

b. Provide the Residual Factors for all other Atmos utility and non-utility business divisions.

c. Explain why it is reasonable to base the Residual Factor on the Western to Atmos ratios for Gross Direct PP&E, Average Number of Customers, and Total O&M Expense.

d. Explain the reference to the "Gray Book."

43. Refer to the Application, Volume 10 of 10, Tab 15, WP B-2, base period for Division 09, pages 3 and 4 of 4. For each of the column headings listed below, identify the source of information for the items contained in the column and provide the cross-reference to where that item can be found in the Application. If the item has not been provided in the Application, provide the source of information for the item in question.

- a. "WKG Direct Additions FY 99."
- b. "service prog. WKG adds April 1999."
- c. "WKG OH 98 carryover."
- d. "WKG OH FY 99."
- e. "02 OH FY 99."

44. Refer to the Application, Volume 10 of 10, Tab 15, WP B-2, forecasted period for Division 09, pages 3 and 4 of 4. For each of the column headings listed below, identify the source of information for the items contained in the column and provide the cross-reference to where that item can be found in the Application. If the item has not been provided in the Application, provide the source of information for the item in question.

- a. "WKG Direct Additions FY2000."
- b. "WKG OH FY2000."

- c. "02 OH FY2000."
- d. "WKG Additions FY2001."

45. Refer to the Application, Volume 10 of 10, Tab 15, WP B-3.2, for both the base and forecasted periods, Division 09.

a. For the base period, explain the reason for the columns titled "Total Company Adjusted Jurisdiction – Reserve" and "Reserve Computation."

b. For the forecasted period, explain the reason for the columns titled "Division 09 13 Month Avg. – Reserve" and "Reserve Computation."

c. For both periods, explain why the "12 Month Expense" column includes a reference to 95.45 percent.

d. Provide the calculations used to determine the 95.45 percent.

e. For the forecasted period, explain the reference to "ELG" in the annual accrual rate column.

46. Refer to the Application, Volume 10 of 10, Tab 15, WP B-4.1, Working Capital Components, for both base and forecasted periods. Provide a breakdown showing all accounts and subaccounts contained in the Prepayments for each period. This breakdown should use the same accounting system as was used to show the detail for Materials and Supplies.

47. Refer to the Application, Volume 2 of 10, Tab 10, the Testimony of Thomas H. Petersen and Volume 9 of 10, Tab 3, the class cost-of-service study.

a. Provide the name of the model used for the cost-of-service study and specify whether this is an industry model or an in-house model. Provide a narrative description of the study and written operating procedures for running the model.

b. Do any of Western's affiliates use this model? If so, identify any concerns that have been expressed or modifications that have been made by other state regulatory commissions in cases in which this model has been presented in support of those affiliates' revenue allocation or rate design proposals.

c. Identify any other models that were considered by Western prior to selecting this model and whether the other models provided similar results and guidance. If other models were reviewed, why was this model considered superior? If no other models were reviewed, how can the Commission be assured that the guidance represented by this model is the most reasonable?

d. Class load factor is defined by Mr. Petersen as the average daily use divided by design day use or maximum daily contract level. Expand on this definition and explain how this factor is used in the model.

e. On page 3 of his testimony Mr. Petersen states that the rate classes selected use available data that captures the class differences in load characteristics. Can the available data be readily subdivided into groupings other than the five rate classes used in the study?

f. Mr. Petersen also states that the study was performed using fiscal year 1998 data and that results using the forecasted test period would follow a pattern similar to that of the historic cost-of-service analysis. Provide the results for the forecasted period and the appropriate workpapers in the same form as provided in the original filing (i.e., nineteen pages of model results and nine pages of supporting workpapers).

g. What are the results of the model for the historic test period normalized for weather using the proposed rates and the resulting revenue levels? What are the results of the model using the forecasted test year with the proposed rates and resulting revenue levels? Provide these results and the appropriate workpapers in the same form as provided in the original filing.

h. An adjustment for customer accounts was incorporated into the model. Explain why this was the only adjustment other than the adjustment to normalize weather incorporated into the model.

i. Notes are included in many pages of the study describing rules, actions or assumptions applied to the particular worksheet. Provide a narrative description of these rules and actions and the source of the assumptions.

48. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Rate G-1 and G-2. Why is there no page reference for: (1) the Weather Normalization Adjustment; (2) the Gas Cost Adjustment Rider; and (3) the Margin Loss Recovery Rider? Does Western agree that including page references for each of these items would enable the tariff reader to better follow the tariffs without being required to constantly refer to the tariff index?

49. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 26, Weather Normalization Adjustment Rider ("WNA").

a. The tariff shows an effective date of July 24, 1999, while page 37 of the Testimony of Gary L. Smith indicates the WNA would go into effect November 1, 2000. What is the correct effective date for the WNA?

b. The tariff states "Base loads and heating sensitivity factors will be determined by class and computed annually." Provide a detailed description of how base loads and heating sensitivity factors will be determined. Include example calculations if necessary.

c. Page 38 of the Testimony of Gary L. Smith sets out a proposed schedule for filing periodic reports with the Commission. Should the schedule and a description of these reports be included in the tariff? Why or why not?

d. At page 37 of the Testimony of Gary L. Smith he states that the proposed WNA mirrors that of Western's affiliate, United Cities Gas Company. Provide for the last three years (fiscal or calendar), a comparison of United Cities' residential revenues both with and without the impacts of its WNA.

50. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 27, Gas Cost Adjustment Rider ("GCA").

a. Since the proposed GCA is zero-based, is it still necessary that Western file its GCA on a monthly basis?

b. Explain in detail why quarterly GCA filings, as submitted by Kentucky's other major LDCs, would not be sufficient to meet Western's gas cost recovery needs.

51. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 271, the Margin Loss Recovery Rider ("MLR").

a. The tariff does not specify this, but the Testimony of Gary L. Smith, at page 29, indicates that the proposal will shift lost revenues to sales customers. Why

is the proposed shift to sales customers only? Explain how the proposed 90 percent / 10 percent sharing between customers and the company was developed.

b. The MLR tariff does not specify the rate schedules to which it would be applied. Was this an oversight or was it done intentionally? Explain why an "Applicable" provision designating the appropriate rate schedules should not be included in the tariff.

c. How was it determined that the MLR should be adjusted on a semi-annual basis, as opposed to monthly, quarterly, or annually?

52. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 30d, Gas Research Institute ("GRI") R & D Rider.

a. The unit charge in the tariff is proposed to be billed "according to the transition schedule outlined in the pipeline's tariffs." Provide the transition schedules for each of the pipelines serving Western.

b. What was Western's "level of contribution per Mcf" as of December 31, 1998?

c. Why is the proposed tariff rider to be "applicable to all gas transported by the Company other than Rate T-3 and T-4 Carriage Service"?

d. Does "all gas transported" mean sales and transportation volumes or transportation volumes only? Explain why it should be one or the other.

e. Identify any other methods of GRI cost recovery that Western considered and explain why those methods were not selected.

f. Identify the benefits that accrue to Western's ratepayers from Western's funding of GRI's R & D activities.

53. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 49, Alternative Receipt Point Service. Provide cost support for the proposed distribution charge of \$.10 per Mcf.

54. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 51, Special Charges.

a. Even though rate schedules G-1, G-2, LVS-1, LVS-2, T-3, and T-4 all include sections headed "Late Payment Charge," Sheet No. 51 and the Testimony of Gary L. Smith, indicate the proposed Late Payment Charge of 5 percent will be applied only to Rate G-1 sales service. Explain the reasoning for applying the 5 percent charge to only one rate schedule.

b. What other local gas distribution companies is Western aware of that have a late payment charge which is applicable to only one of several rate schedules?

c. What is the purpose of the Late Payment Charge section in the tariffs, other than Rate G-1, identified in part (a) above?

d. Provide the amount of annual revenue that Western expects the Late Payment Charge to generate. Include supporting calculations and sufficient narrative explanation to explain the calculations.

55. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 30a, Demand-Side Management Cost Recovery Mechanism, and the Testimony of Gary L. Smith and Michael Marks on the same subject.

a. Explain why the WKG CARES program is proposed for another three years, as opposed to one or two years, or on a permanent basis.

b. What consideration, if any, was given to implementing the program on a permanent basis?

c. Are the non-permanent nature of the proposed three-year program and the proposal to recover costs for the three-year pilot program the only reasons for proposing a surcharge mechanism rather than including the prospective costs for recovery through base rates? If there are other reasons for using a surcharge mechanism, explain them in detail.

d. The tariff itself does not specifically mention the annual filing with the Commission discussed in the Testimony of Michael Marks. Was this an oversight or intentional? Provide any reasons why Western would be opposed to including a statement in the tariff identifying and describing the annual filings proposed by Mr. Marks.

56. Refer to Volume 1 of 10 of the Application, Tab 6, Proposed Tariffs, at Sheet No. 67, Rules and Regulations, Part (I), Premises charge and the Testimony of Daniel Ives.

a. The proposed Premises Charge is only for the residential customer class and Mr. Ives discusses this on page 11 of his testimony. Even though 84 percent of customer growth is in the residential class, explain why Western would choose not to address the same problem of incremental versus embedded costs for the remaining one-sixth of its customer growth occurring in other customer classes.

b. On page 10 of his testimony Mr. Ives discusses the proposed fifteen-year recovery period for the Premises Charge. Explain why a shorter life, based

on the Internal Revenue Service's MACRS system, is appropriate for per books accounting by a regulated entity.

c. Provide support for Mr. Ives statement that "a fifteen-year recovery period is consistent with what is being used elsewhere in the industry."

57. Refer to Volume 2 of 10 of the Application, the Testimony of David H. Doggette, pages 12-14, and Exhibit DHD-2.

a. Some of the service charge studies discussed by Mr. Doggette and included in Exhibit DHD-2 covered Western's fiscal year 1998. Identify any studies, other than the April 1999 survey of banks, that cover a period other than fiscal year 1998.

b. Does the summary analysis on Exhibit DHD-2, page 1 of 8, at Column 3, represent the actual number of orders charged for fiscal year 1998, or does it represent the actual number of orders for any period? Explain what Column 3 represents.

c. Explain why Exhibit DHD-2, page 1 of 8, does not include all the special charges included in Western's proposed tariffs at Sheet No. 51.

d. What impact, if any, do the proposed revenues in Exhibit DHD-2, page 1 of 8, Column 15, or the increase in revenues in Column 16 have on the increase in Other Revenues derived from comparing Exhibits GLS-7 and GLS-1 of the Testimony of Gary L. Smith?

58. Refer to Volume 2 of 10 of the Application, Tab 11, the Testimony of Gary L. Smith at pages 4-12.

a. Provide the historical data for the three-year period referred to by Mr. Smith on page 6 of his testimony including: (1) the number of customers by customer class; (2) sales volumes, by customer class, adjusted for normal weather; (3) annual changes in volumes for industrial sales and transportation deliveries; and (4) the level of volume migration from sales to transportation volumes.

b. Provide detailed calculations showing the derivation of the adjustment for industrial sales and transportation deliveries referred to by Mr. Smith on page 8, lines 25-28 of his testimony.

c. On page 7, lines 5-6 of his testimony, Mr. Smith refers to "historical growth rates averaging slightly less than 2,000 for the three prior years." To what three years does Mr. Smith refer? How does this statement reconcile with the table on page 12 of his testimony that reflects an average of at least 2,156 for any three-year period included therein?

d. For each year in the five-year period covered in the table on page 12 of Mr. Smith's testimony, provide a breakdown of growth in residential customers between "new construction" and "on-main conversions."

59. Refer to Volume 2 of 10 of the Application, Tab 11, the Testimony of Gary L. Smith, and Exhibits GLS-1 through GLS-7.

a. Exhibit GLS-3 summarizes the impact of industrial contract adjustments and volume changes. Provide supporting workpapers and narrative descriptions of these changes, by customer (the actual identity of the customers may be omitted and reference made by numbers and/or letters, i.e., - customer 1a).

b. Exhibit GLS-6 summarizes the volume adjustment for declining customer usage. Provide supporting workpapers and narrative descriptions of the calculations made to derive the adjustment.

c. Exhibit GLS-1 shows revenues at current rates reflecting all adjustments to derive test year volumes while Exhibit GLS-7 shows revenues at proposed rates reflecting the same adjustments. Are there any differences in the two exhibits other than: (1) different rates / margins; (2) Alternative Receipt Point volumes and revenues; (3) the amounts shown for Additional Contract Reformation; and (4) the amounts shown for Other Revenue? If yes, identify and explain those differences.

60. Refer to Volume 2 of 10 of the Application, Tab 8, the Testimony of Dr. Donald A. Murry.

a. Page 6, lines 20 through 22, indicates that the Commission should make allowances for the added risk of the inclusion of short-term debt in the capital structure. In what way should the Commission make such an allowance?

b. Page 5, beginning on line 17, indicates that Atmos raises capital for Western's operations. Is this beneficial to Western? If so, should the Commission make allowances for Western's ability to access this capital source? Would it be more risky for Western if it had to raise capital itself for its operations?

c. Provide an explanation of why each company in the group of comparative companies is considered to be a viable comparison to Atmos.

d. Provide the most recently approved return on equity for each of the comparable companies, along with the date each was approved.

e. Do any of the comparable companies use a weather normalization adjustment, a premises charge, or a margin loss recovery mechanism to stabilize their earnings? If so, which ones?

f. What effect would the implementation of a weather normalization adjustment have on Western's financial risk?

g. What effect would the implementation of a premises charge have on Western's financial risk?

h. What effect would a margin loss recovery mechanism have on Western's financial risk?

61. Refer to Volume 10 of 10 of the Application, Tab 4, Summary of Jurisdictional Adjustments by Major Accounts, Schedule D-1, Sheet 1 of 4 and Schedule D-2.1, Sheets 1 and 2.

a. Provide supporting workpapers for the revenue and gas purchases adjustments on these schedules, or reference where provided if already included in the application or in response to other requests contained in this Order.

b. Provide narrative descriptions of the workpapers provided in response to part (a) above.

c. Explain in detail the reasons for the proposed reductions to Service Revenues and Other Gas Service Revenues.

62. Refer to Volume 2 of 10 of the Application, Tab 1, the Testimony of Conrad E. Gruber, specifically, the table on page 11 which denotes Western's operating and maintenance cost efficiencies in comparison to industry averages.

a. Provide copies of the A.G. Edwards study cited and a detailed schedule of Western's operating and maintenance expenses, identified by fiscal year ("FY"), used to determine Western's Costs per Meter as shown in the table.

b. Provide a detailed schedule of Western's gas utility employees by job classification for the period used to determine Western's number of employees per 1,000 customers as shown in the table.

c. Provide documentation used for external reporting purposes to substantiate the number of meters in service and thousands of customers served for the period represented by the table.

63. Refer to Volume 2 of 10 of the Application, Tab 1, the Testimony of Conrad E. Gruber, specifically page 16, which indicates that installation of the Oracle system was expected to be completed by July 1999, and refers to the series of IT projects that are essential for Y2K readiness.

a. Has the Oracle system been implemented and tested for Y2K readiness?

b. Provide a description of the other projects scheduled for completion prior to the end of 1999 to assure Western's customers of Y2K readiness.

c. Identify any costs associated with Western's Y2K readiness that are included in the base year or the forecasted year.

64. Refer to Volume 2 of 10 of the Application, Tab 6, the Testimony of Donald P. Burman, and Volume 4 of 10, Tab 4, Filing Requirement 10(9)(m).

a. Explain whether FR 10(9)(m) is a complete conversion table to NARUC accounts as presented for operating revenue and expenses in Volume 10 of 10, FR 10(10)(c), Schedule C-2.1 and Schedule C-2.2.

b. Are the references in the "detail" sections of this exhibit to NARUC accounts the same as the accounts used to file the annual FERC Form No. 2 with the Commission?

65. Refer to Volume 2 of 10 of the Application, Tab 4, the Testimony of Betty L. Adams. Does Western have a conversion table that converts its current chart of accounts for general ledger purposes to the NARUC accounts as presented for operating revenue and expenses in Volume 10, FR 10(10)(c), Schedule C-2.1 and Schedule C-2.2? If yes, provide the conversion table.

66. Are the NARUC account numbers referenced in Ms. Adams' testimony at page 5, lines 5 through 23, the same as the account numbers used to determine the account balances for the annual FERC Form No. 2 filed with the Commission? If no, is there a conversion table that converts from NARUC accounts, to FERC accounts, to Western's general ledger chart of accounts?

67. Refer to Ms. Adams' testimony.

a. Are the operating revenue and expenses in Volume 10, FR 10(10)(c), Schedule C-2.1 and Schedule C-2.2 according to NARUC accounts available according to Western's current general ledger chart of accounts? Resubmit these schedules according to the current chart of accounts.

b. Does Western have operating revenue and expenses in the detailed manner described above according to its current chart of accounts which

compare budgeted amounts to actual year-to-date totals for the FY 1998, 1997, 1996, 1995 and 1994?

c. If yes to part (a) provide the budget to actual comparison for those years. Provide a brief explanation for accounts with a budget to actual variance of 5 percent or greater.

d. Resubmit Volume 10, FR 10(10)(d), the summary of jurisdictional adjustments, according to Western's general ledger chart of accounts.

e. Resubmit Volume 9, FR 10(9)(d) for the base year and test year according to Western's general ledger chart of accounts.

f. Are the jurisdictional adjustments in Volume 10, FR 10(10)(d) and FR 10(9)(d) for the base year and test year by account as Western would submit to the Commission in a FERC Form No. 2 annual report? If not, resubmit these schedules according to the FERC accounts.

g. Are the operating revenue and expenses in Volume 10, FR 10(10)(c), Schedule C-2.1 and Schedule C-2.2 according to FERC Form No. 2 as filed annually with the Commission available? If no, resubmit these schedules according to the FERC accounts.

68. Refer to Volume 2 of 10 of the Application, Tab 4, the Testimony of Betty L. Adams. On page 6, line 24, a table is presented to point out Western's overall operating and maintenance ("O & M") budgeting effectiveness for FY 1994 through 1998. Provide the source documents from which this table was created, with amounts detailed according to Western's general ledger chart of accounts.

69. On page 8, line 22 of Ms. Adams' testimony there is a discussion of the increase in the forecasted test period labor costs that is attributed to "the planned filling of a number of vacant employee positions and... a four percent wage increase."

a. Provide the number of vacant employee positions, by job classification, that Western intends to fill.

b. Provide the actual employee positions, by job classification, and provide the actual period used to determine the number of vacant positions necessary.

c. Does Western have both union and non-union employees? If there are union employees, provide the job classifications and a copy of the union contract.

d. Provide a schedule showing the derivation of the proposed 4 percent wage increase along with an explanation of how wage increases are determined for management, union and non-union employees.

e. Provide a list of the planned positions being filled that were previously held by contractors, by job classification, and break down the list further by identifying contractors performing construction activities, not operational duties.

f. Identify how many years the contractors have performed construction activities and whether these activities are now being considered in the planned construction budget.

g. If the planned positions are replacing contractors that have been performing construction services, and construction services with contractors are included in the planned construction budget, provide a detailed description of the expected benefits from the addition of the planned operating and maintenance employees that Western's customers will receive that they have not been receiving.

70. Resubmit Volume 9, FR 10(9)(h)9 for the years 2000 through 2003 with employees separated by job classifications. Also, provide a comparison of budgeted to actual number of employees for FY 1994 through 1998. Provide references in each of these schedules to the employee numbers by Western's chart of account number, NARUC account, and FERC account. Explain any increases or decreases of 5 percent or more in employee numbers from year to year.

71. On page 9, lines 10 through 17 of Ms. Adams' testimony is a discussion of the increase in the forecasted test period communications expense that is attributed to increased use of mobile data terminals ("MDTs") and higher cellular usage. Provide a schedule showing the cost amounts, MDT units acquired and plant accounts charged since the project inception, showing the years in which the investments in MDTs were made.

a. Does Western have contracts for communications expenses, such as long distance and cellular usage?

b. If yes, provide the old and new contracts and an explanation of why the usage was deemed to increase in the forecasted period considering any contractual changes or changes in services used.

c. Give a quantified determination of how this increase was estimated and whether the costs are under contract or not.

72. Refer to Ms. Adams' testimony. Provide an explanation, complete with a quantified determination, of how the increase in uncollectible write-offs was calculated for the forecasted test period.

a. Provide the accounts receivable aging schedules for the last two fiscal years.

b. Explain why under-budgeted write-offs for the six-month period in FY 1999 provided sufficient reason to adjust the forecasted period.

c. Provide an accounts receivable aging schedule for the last month of actual results in the test period.

d. Provide an account analysis of Western's reserve for uncollectibles comparing the actual charge-offs with the year to date provision for uncollectibles (expense) for the six-month period of actual results in the FY 1999 that comprises part of the base year. If different, schedule Western's monthly provision for uncollectibles (expense) in comparison to the year-to-date ("YTD") budget.

e. Provide a comparison of the YTD budget to actual provision for uncollectibles (expense) for the last two fiscal years.

f. Provide a comparison of the reserve for uncollectibles to accounts receivable for FY 1997, FY 1998 and the end of the six-month actual period included in the base year.

73. In Volume 10 of 10 of the Application, Schedule D2.2, Sheet 2 of 2, "ADJ 7" includes the "transfer of Human Resources expenses from Shared Services of \$67,700."

a. Provide a list of the job(s) transferred, an explanation of the previous job(s) function with Shared Services, and an explanation of the job(s) function with Western.

b. Did similar job reclassifications occur with Western's gas distribution affiliates? If yes, give an explanation of the reasoning. If no, why not?

74. In Volume 10 of 10 of the Application, Schedule D2.3, Sheet 1 of 1, "ADJ 2" is described as an adjustment to "reflect the amortization of the PSC Assessment for 1997 paid in 1999." Provide a detailed explanation and calculations to support the determination of this adjustment.

75. Refer to Ms. Adams' testimony at page 10, line 6, where adjustments to Western's FY 1999 budget decreasing O & M expenses and increasing Shared Services expenses are discussed in regard to the utilization of the new "Customer Support Center in Amarillo, Texas." Provide quantified schedules, referenced to Western's chart of accounts, with explanations of the cost shifts discussed, i.e., decreased number of employees by job classification to Western, new charges by Shared Services.

76. Refer to Ms. Adams' testimony at page 10, line 17, where adjustments to Western's FY 1999 budget decreasing O & M expenses and increasing Shared Services expenses are discussed in regard to the United Cities Gas merger. Provide quantified schedules, referenced to Western's chart of accounts, with explanations of the cost shifts discussed, i.e., decreased number of employees by job classification to Western, new charges by Shared Services.

77. Refer to Ms. Adams' testimony at page 10, line 22, where adjustments to Western's FY 1999 budget from non-labor savings in the "proposed Gas Meter Performance Control Program" are referenced. Provide a detailed schedule with a calculation showing how these savings were determined.

78. Refer to Ms. Adams' testimony at page 10, line 22, where adjustments to Western's FY 1999 budget from transferring the rates and regulatory vice-president position from the Shared Services staff is mentioned. Did similar job reclassifications occur with Western's gas distribution affiliates? If yes, give an explanation of the reasoning. If no, why not?

79. Refer to Ms. Adams' testimony at page 13, lines 15 through 18, where the adjustments to Western's "Shared Services" forecasted budget includes an adjustment for a "decrease in the labor portion of Atmos' administrative and general overheads, which is a capital expense."

a. Provide a description of these costs and a schedule of these costs, with reference to the accounts charged in the Shared Services forecasted budget.

b. Explain how these costs represent a capital expense as Atmos administrative and general overhead, but upon reclassification as a Shared Service expense become an operating and maintenance expense subject to recovery through customers' rates.

c. Were these costs similarly reclassified for Shared Services charges to Western's gas distribution affiliates? If yes, give an explanation of the reasoning. If no, why not?

80. Provide the basis for the beginning of Western's FY 1999 budgeting process in quantitative form, i.e., prior year's budget, prior year's actual results, by Western's current chart of accounts.

a. Provide a listing of the known adjustments made at the beginning of Western's budgetary process, i.e., increase or decrease in employee numbers, reductions for expenses non-recurring in nature.

b. Provide a listing of the known adjustments made at the major decision-points of Western's budgetary process, i.e., increase or decrease in employee numbers, reductions for expenses non-recurring in nature, deferring or accelerating maintenance projects.

81. Provide the basis for the beginning of the Western's "Shared Services" FY 1999 budgeting process in quantitative form, i.e., prior year's budget, prior year's actual results, prior year service adjusted by changes in affiliated charges, by Western's current chart of accounts.

a. Provide a listing of the known adjustments made at the beginning of Shared Services' budgetary process, i.e., increase or decrease in employee numbers, reductions for expenses non-recurring in nature.

b. Provide a listing of the known adjustments made at the major decision-points of Shared Services' budgetary process, i.e., increase or decrease in employee numbers, reductions for expenses non-recurring in nature, deferring or accelerating projects.

82. Refer to Volume 2 of 10 of the Application, Tab 4, the Testimony of Betty M. Adams, page 3, which shows her sponsoring FR 10(10)(d) and FR 10(10)(f) and Volume 10 of 10, Tabs 4 and 6, which include FR 10(10)(d) and FR 10(10)(f). Provide a schedule of the rate-making adjustments for country club dues, promotional advertising and sales expenses, employee party and gift expenses and pension expense in

reference to the "Detailed Adjustments" in Volume 10, FR 10(10)(d)2.1, FR 10(10)(d)2.2, and FR 10(10)(d)2.3, as applicable.

a. Provide the location of the above adjustments in FR 10(10)(d)1, with specific account number references.

b. Provide the location of the above adjustments in FR 10(10)(d)1, with specific account number references to the same schedule as previously requested to be resubmitted in Western's general ledger account number form.

83. Refer to Volume 2 of 10 of the Application, Tabs 2 and 4, the testimony of R. Earl Fischer and Betty L. Adams. To some extent, both witnesses address the issue of direct billed intercompany services and allocated service costs from Atmos's Shared Services Business Unit ("Shared Services") to Western and other Atmos business units.

a. Provide a detailed operating statement for Shared Services for FY 1997, 1998, and year to date FY 1999 actual, with detailed intercompany revenue accounts to reflect similar services provided by Shared Services for the Atmos operating divisions. Specifically, reference Shared Services' revenue accounts to Western's expense accounts by current chart of accounts. Provide the FY 1999 Shared Services budget and provide updates of FY 1999 actual data as it becomes available.

b. Provide contractual agreements between Western and Shared Services since 1997, with a schedule of expected service cost increases that are included in the determination of the base year or the forecasted year. Reference these service costs to Western's expense accounts by current chart of accounts.

c. Provide Shared Services' cost allocation manual, if available. If none is available, describe the cost allocation process for the portion of the cost not directly billed to Western and provide copies of all internal policies and procedures relating to the allocation of costs from Shared Services to Western.

Done at Frankfort, Kentucky, this

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST:

Executive Director

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 1
Witness: Gruber**

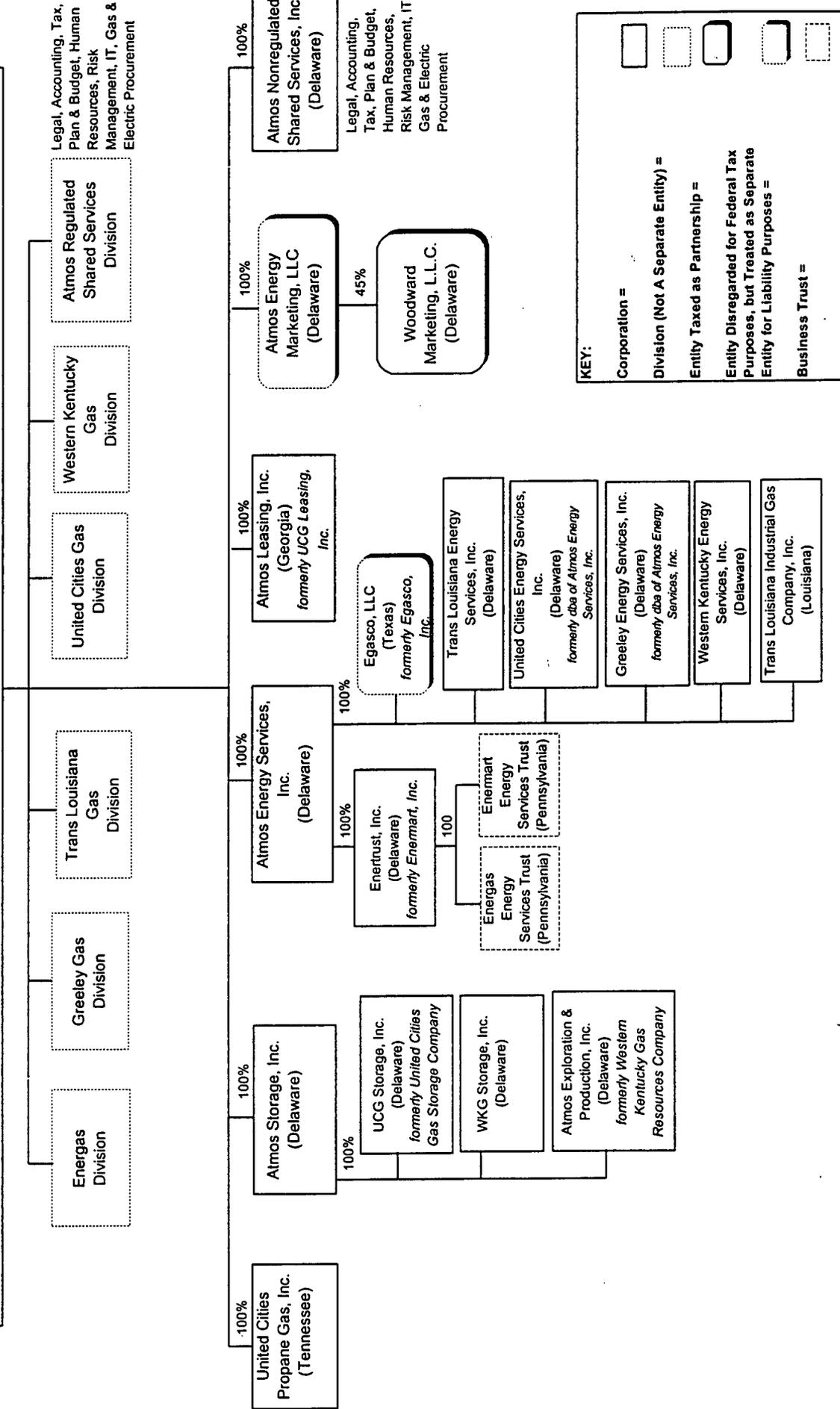
Data Request:

Provide an organization chart for Atmos Energy Corporation ("Atmos") as of June 1, 1999. The chart should show all regulated utility divisions and non-regulated businesses.

Response:

See attached Atmos organization chart.

ATMOS ENERGY CORPORATION



KEY:

- Corporation =
- Division (Not A Separate Entity) =
- Entity Taxed as Partnership =
- Entity Disregarded for Federal Tax Purposes, but Treated as Separate Entity for Liability Purposes =
- Business Trust =

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item Question 2
Witness: Thomas H. Petersen

Data Request:

2. With the exception of Western, provide the following information for each of the regulated utility divisions:
- a. The state jurisdictions in which the division operates.
 - b. The year of the division's last completed general rate case proceeding. If the division is currently involved in a general rate case, indicate when that proceeding is expected to be completed.
 - c. The authorized rate of return on common equity awarded or authorized in the last completed general rate case proceeding. If the division is currently involved in a general rate case, indicate the rate of return on common equity requested by the division.

Response:

- a) Atmos Energy Corporation provides regulated utility service in twelve states. It does business as Energas Company in Texas; as Greeley Gas Company in Colorado, Kansas and Missouri; as Trans Louisiana Gas Company in Louisiana; as United Cities Gas Company in Georgia, Illinois, Iowa, Missouri, South Carolina, Tennessee and Virginia; and as Western Kentucky Gas Company in Kentucky.
- b&c) Energas Company's last general rate proceeding was completed in 1996. The case was settled with no rate of return specified.

Greeley Gas Company's last general rate proceeding in Colorado was completed in 1998. The case was settled with no rate of return specified. The company's last general rate proceeding in Kansas was completed in 1995. The case was settled with no rate of return specified.

Trans Louisiana Gas Company's last general rate proceeding was completed in 1995. The approved range for rate of return on common equity was 11.75 to 12.25 percent. The Company is currently involved in a proceeding that is expected to be completed later in 1999. The company has proposed a rate of return on common equity of 12.25% in the current proceeding.

United Cities Gas Company's last general rate proceeding in Georgia was completed in 1996 with an approved rate of return on common equity of 11.5 percent. The company's last general rate proceeding in Illinois was completed in 1997 with an approved rate of return on common equity of 10.94 percent. The company's last general rate proceeding in Iowa was completed in 1996 with an approved rate of return on common equity of 11.0 percent. The company's last general rate proceeding in Missouri was completed in 1995 with an approved rate of return on common equity of 12.15 percent. The company's last general rate proceeding in South Carolina was completed in 1995 with an approved rate of return on common equity of 11.75 percent. The company's last general rate proceeding in Tennessee was completed in 1995. The case was settled with no rate of return specified. The company last general rate proceeding in Virginia was completed in 1998 with an approved rate of return on common equity of 11.0 percent.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 3
Witness: Donald P. Burman

Data Request:

Western's last general rate case was Case No. 95-010.¹ In the August 10, 1995 Order in that case, the Commission expressed its concern about Western's practices of funding only a portion of its other post-retirement employee benefits ("OPEBs") and of funding internally rather than using a protected fund administered by a third party. Describe Western's current practice with regard to these two issues. In addition, provide justification for Western's current practice with regard to these two issues. In addition, provide justification for Western's current level of OPEB funding.

Response:

Although the Commission expressed its concern that Western fund its OPEB obligation to the extent the expenditures were tax deductible, Western has continued to only fund the amount of claims incurred, which has benefits for Western's customers, and has recorded a liability for the difference between the actuarially determined amounts and the amounts paid. Western is continuing to consult with its tax accountants to determine the maximum tax deductibility.

¹ Case No. 95-101, An Adjustment of Rates of Western Kentucky Gas Company, Orders dated August 10, 1995 and October 20, 1995.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 4
Witness: Donald P. Burman

Data Request:

In the October 20, 1995 Order, which adopted the October 9, 1995 Settlement Agreement, the Commission acknowledged Western's agreement to perform a new depreciation study no later than its next general rate application. However, the October 20, 1995 Order reminded Western that the Commission's concerns about its depreciation study, expressed in the August 10, 1995 Order, would remain pertinent for the review of the new depreciation study.

- (a) Explain in detail how the concerns expressed in the August 10, 1995 and October 20, 1995 Orders have been addressed by the September 30, 1997 depreciation study filed with Western's application.
- (b) Refer to the September 30, 1997 depreciation study filed with the application. Provide the calculations for the new salvage rates with details and supporting documentation, which support the change to a negative 150 percent, in the salvage rate for Account 380, Services.

Response:

- (a) The Company acknowledges the Commission's concerns expressed in the earlier orders. However, the Company believes that those concerns were misplaced. While it is true that the prior depreciation study (as of September 30, 1992) utilized only six years of history for certain analyses, other analyses were conducted which encompassed an entire period of history using a different life analysis tool. The current study also utilized both analysis methodologies, not to mention, the additional 5 years of actual aged historical retirement experience. In addition, both studies gave consideration to the future plans and expectations of the Company. Therefore, the Company is confident that the current study methodology and conclusions adequately address those concerns, and the results of the study reflected in this application are fair and reasonable, and do not reward nor penalize any generation of ratepayers.
- (b) The attached spreadsheet provides the quantitative supporting documentation for Account 380. There is a distinct trend toward higher cost of removal. Greater reliance was placed on 1997 due to the reflection of a change in accounting. Therefore, the Company believes that 1997 is the best expectation of what the future will be also recognizing the cost of removal trend and the reduced salvage. A conservative approach was taken due to the significant change and only 50% of the actual experienced percentages were utilized.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Response 4 (b)
Account 380 - Services Net Salvage Analysis

<u>Year</u>	<u>Retirements</u>	<u>Salvage (*)</u>	<u>Cost of Removal (*)</u>	<u>Salvage %</u>	<u>COR %</u>	<u>NS %</u>
1993	110,087	696,702	176,179	633%	160%	473%
1994	156,110	573,554	280,944	367%	180%	187%
1995	204,293	354,291	426,682	173%	209%	-35%
1996	176,565	507,706	442,262	288%	250%	37%
1997	215,379	68,465	750,510	32%	348%	-317%
	<u>862,434</u>	<u>2,200,718</u>	<u>2,076,577</u>			

(*)Note: These amounts are for the total distribution plant function.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 5
Witness: Smith

Data Request:

Refer to the Application, Volume 1 of 10, Tab 1, Item 5. Provide the calculations that support Western's determination that it has experienced an \$800,000 decline in lost industrial margins and \$1,600,000 in lost margins due to energy conservation and declining customer usage. Include a detailed explanation as to how Western identified these specific causes.

Response:

Western's calculations supporting margin losses since our last rate case in 1995, associated with discounts to retain bypass-vulnerable industrial margins customers and those attributable to declining Residential and Commercial customer usage, is attached as Schedule PSC DR NO. 1 - DR Item 5. The information relating to industrial discounts is filed under a petition for confidentiality due to the necessity of revealing the affected volume and discount level for purposes of this computation.

Western identified these specific causes during the process of developing the Fiscal Year 2000 Budget (and the calendar year 2000 budget for the Test Period in this Case). Margin reductions necessary to retain bypass-vulnerable accounts and their accumulated affect on Western's financial performance has long been recognized, and monitored, in the preparation of forward-looking budgets. The calculation of the \$800,000 margin losses was performed to record the impact of this phenomenon since Western's last rate case. The calculation is shown on Schedule DR-5, Sheets 1 and 2.

Prior to Western's preparation of the FY 2000 budget, however, the Company had not monitored the cumulative magnitude of Residential and Commercial energy conservation, or its impact on our financial performance since the last rate case. Refer to pages 12 (lines 28-31) through 13 (lines 1-16) of my testimony for more information on our discovery of this matter. To quantify the impact on Western's margin, we computed the current annual margin reduction from the test period in the last rate case. The calculation is shown on Schedule DR-5, Sheet 3.

PSC DR NO. 1
DR Item 5
Sheet 1 of 3

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 5
Witness: Smith

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PSC DR NO. 1
DR Item 5
Sheet 2 of 3

Western Kentucky Gas Company
Case No. 99-070
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DR Item 5
Witness: Smith

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Western Kentucky Gas Company
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DR Item 5
Witness: Smith

Line No.	Description	Calculations	Source
	(a)	(b)	(c)
1	Residential Conservation Effect:		
2			
3	FY 1994 Number of Residential Customers:	145,689	Financial Statistics, 9/94
4	Average Decline in Mcf/year/customer:	<u>(1.73)</u>	See Derivation in PSC DR 59(b)
5	Total decline for five years to FY 1999, Mcf	<u>(1,260,210)</u>	Line 3 times Line 4 times Five Years
6	Average Commodity Margin/Mcf	<u>\$1.0615</u>	Avg. Commodity Margin, Per Books 9/98
7	Margin Loss Attributable to Conservation -	<u>(\$1,337,713)</u>	Line 5 times Line 6
8			
9	Commercial Conservation Effect:		
10			
11	FY 1994 Number of Com/PA Customers:	18,148	Financial Statistics, 9/94
12	Average Decline in Mcf/year/customer:	<u>(3.00)</u>	See Derivation in PSC DR 59(b)
13	Total decline for five years to FY 1999, Mcf	<u>(272,220)</u>	Line 11 times Line 12 times Five Years
14	Average Commodity Margin/Mcf	<u>\$0.9810</u>	Avg. Commodity Margin, Per Books 9/98
15	Margin Loss Attributable to Conservation -	<u>(\$267,048)</u>	Line 13 times Line 14
16			
17	Total Conservation Effect Since FY 1994 -	<u>(\$1,604,761)</u>	Line 7 plus Line 15

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 6
Witness: Gruber

Data Request:

Refer to the Application, Volume 2 of 10, Tab 1, the Testimony of Conrad E. Gruber. On pages 12 through 18 of the testimony is a discussion of Western's efficiency and productivity improvements. Explain in detail how the benefits of these efficiency and productivity improvements have been incorporated into Western's forecasted period. Include a dollar quantification of the improvements and identify where this quantification has been shown in the forecasted period.

Response:

The benefits of Western's efficiency and productivity improvements have been discussed at length in Mr. Gruber's testimony. See Western's response to DR 8 for a discussion and of how the benefits of many of these and related programs are reflected in Western's total costs. Although the quantification of such benefits are discussed in DR 8 as a component of FY1999, these same benefits will continue and expand into FY2000 as the various programs become more integrated into our overall service delivery process. The quantification of these benefits for FY2000 is hindered because these programs are so inter-related that quantification of the benefits or savings must be viewed from the perspective of the total operations

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 7
Witness: Betty L. Adams

Data Request:

Refer to the Application, Volume 2 of 10, Tab 4, the testimony of Betty L. Adams. On page 5 of the testimony it is stated that Western's O&M budget was converted into National Association of Regulatory Utility Commissioners ("NARUC") accounts. Provide a detailed explanation as to why Western utilized the NARUC accounts rather than following the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission.

Response:

Western has traditionally used the NARUC chart of accounts and converted data as needed for our FERC Form 2. Starting in June of this year with our new financial system we have converted to using the FERC account coding and will no longer use the NARUC account coding.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 8
Witness: Betty L. Adams

Data Request:

On page 10 of the Adams Testimony is a discussion of changes in Western's operational budget due to the implementation of the Shared Services approach. For each change listed on page 10, compare in dollar amounts the changes in Western's O&M budget with the changes in expenses from the Shared Services program. If the increase in Shared Services expense exceeded the reduction in Western's O&M budget for a particular change, explain in detail why it was cost effective to make the change.

Response:

In 1998, Western Kentucky Gas began to experience the effects of significant changes in its operations. These changes included the beginning of a number of key interrelated service delivery process changes, including the establishment of the Customer Support Center and various other business process changes. (See Gruber testimony, pages 12-18.) FY 1998 was truly a year of transition which makes it difficult to compare with either future or prior years.

The appropriate comparison is to compare FY97 to FY99. The decrease in WKG's O&M costs from FY97 to FY99 was \$5.088M while the increase in Shared Services costs from FY97 to FY99 was \$4.281M. Taking into account inflationary increases and the increases in salaries from FY97 to FY99, the reduction is actually greater.

To address the question, however, WKG's O&M costs will decrease from FY98 to FY99 by \$1.253M (See Volume 10, Tab 9, FR 10(9)(h)1 and 10(9)(i)-1.) FY99 is expressed as 6 months actual and 6 months budget. The \$1.253M decrease is itemized below, as is the corresponding increase in Shared Services costs of \$3.075M for the same period.

Total O&M expense for FY98 was \$22.189M. Total FY99 (6 plus 6) is projected at \$24.011M, or an increase of \$1.822M. However, \$2.2M of FY98 capitalized start-up costs for the various service improvements offset the additional labor, benefits and other related costs of transferred responsibilities to the Customer Support Center and credit and collection function during the FY98 transition from the old to new service delivery processes. The result is a net reduction in total cost from FY98 to FY99

	WKG (millions)	S. Svcs (millions)
Office personnel reduction due to closing of offices (amount for 5.5 months)	\$(.750)	\$
Additional labor, benefits and other related costs for above		1.186 (1)
Credit & Collections		1.158 (1)
Gas Control function (12 mos.)	(.174)	.110
Accounting functions	(.110)	.045
Measurement (Meter Shop)	(.105)	
VP Rates (partial year)	.076	(.076)
Vacancies/Pay increases etc.	(.190)	
Various	_____	<u>652</u>
Totals	\$(1.253)	\$3.075
Capitalized start-up cost of various service improvements	_____	<u>(2.200) (1)</u>
Net Increase in Shared Service O&M expenses	\$(1.253)	\$.875

1. Additional labor, benefits and other related costs plus Credit & Collections expense offset by FY98 capitalization start up cost of various service improvements.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 9 a through f
Witness: David H. Doggette

Data Request:

Refer to the Application, Volume 2 of 10, Tab 5, the Testimony of David H. Doggette, concerning Western's capital budgets.

a. Is it correct that none of the capital budgets submitted in Western's application reflect Western's normal "bottom up" development approach?

Response:

Yes. The submitted budgets are forecasted. Please see the testimony of David H. Doggette, page 9, lines 7 through 14.

b. Has Western prepared its capital budgets for FY2001 through FY2003, following the "bottom up" approach, utilizing the new Oracle accounting system? If yes, provide the FY 2001 through FY 2003 capital budgets, using the "bottom up" approach, in a format similar to that shown in Exhibit DHD-1.

Response:

No.

c. Has Western performed any analysis or review to determine if using a "FY 1999 baseline" approach for its capital budgeting produces a similar result as the "bottom up" approach? If yes, provide copies of that analysis or review. If no, explain why such an analysis or review has not been performed.

Response:

No. Although the "bottoms up" approach was not directly utilized for the submitted budgets, appropriate employees were consulted for input and guidance.

d. Have the FY 2000 and FY 2001 capital budgets filed in this proceeding been entered into the Atmos Capital Budget Gathering System? If no, explain in detail why this has not occurred.

Response:

No. Capital budgets are entered into the Atmos Capital Budget Gathering System on an annual basis after approval by the Atmos Board of Directors.

e. Provide copies of the approved FY 2000 and FY 2001 capital budgets within 10 days of their approval by Atmos' Board of Directors. Explain in detail all differences between the approved FY 2000 and FY 2001 capital budgets and those submitted with the application.

Response:

WKG will submit the requested information upon its approval.

f. Provide the capital budgets for the Information Technology strategy and other Shared Services projects, for the FY 2000 through FY 2003 periods. This information should show the amounts for the total budget, as well as Western's forecasted investment, for each fiscal year. Explain in detail how Western's forecasted investment was determined.

Response:

The capital budgets for the Information Technology strategy and other Shared Services projects for FY 2000 through FY 2003 is attached as DR 9, Schedules 1 & 2. Western's forecasted investment was determined by using Western's percentage of customers to the total Atmos customer count, approximately 17%.

DR 9, Schedule 1

TOTAL ATMOS BUDGET

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
IT Strategy	\$ 11,428,000	\$ 8,470,000	\$ 10,124,000	\$ 2,015,000
Shared Service	\$ 451,000	\$ 443,000	\$ 442,000	\$ 450,000
Total Capital	\$ 11,879,000	\$ 8,913,000	\$ 10,566,000	\$ 2,465,000

WESTERN'S FORECASTED INVESTMENT

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
IT Strategy	\$ 1,980,000	\$ 1,468,000	\$ 1,754,000	\$ 349,000
Shared Service	\$ 76,000	\$ 74,000	\$ 74,000	\$ 75,000
Total Capital	\$ 2,056,000	\$ 1,542,000	\$ 1,828,000	\$ 424,000

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 10
Witness: David H. Doggette

Data Request:

Refer to the Application, Volume 2 of 10, Tab 5, Exhibit DHD-1, page 2 of 6. Provide the workpapers and assumptions used to determine that the projected overhead rate should be 50 percent and the projected increase in maintenance and improvements should be 36.25 percent for the FY 2000 capital budget. Include an explanation as to how these determinations were made.

Response:

The 50 percent overhead rate was based on a review of Atmos' Administrative & General (A&G) overhead dollars and Western's business unit overhead dollars for the FY 1999. The Atmos A & G allocation was \$1,106,000 and the Western business unit allocation was \$1,840,000. Which when added to Western's direct capital expenditures for FY 1999 results in a total capital budget of \$8,408,000. The FY 1999 overhead rate is therefore 53%, hence a similar rate of 50% was applied for overheads in FY 2000. The projected 36.25% increase in maintenance and improvements for FY 2000 is a result of prudent management practices during abnormal weather periods, such as deferring certain non-safety related projects.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 11
Witness: Donald P. Burman

Data Request:

Refer to the Application, Volume 2 of 10, Tab 6, the Testimony of Donald P. Burman. On pages 6 and 7 of the testimony is a discussion of Western's accounting for pension expense.

- a. Provide the balances of Western's pension assets and obligations shown on its balance sheet as of March 31, 1999, as well as for the base period and forecasted period. Include the account numbers and titles used to record these assets and obligations.
- b. Has Western included its pension assets and obligations in its calculation of its rate base? If so, provide the reference to the appropriate schedules and workpapers that disclose this inclusion.

Response:

- a. The balance of Western's pension assets shown on its balance sheet as of March 31, 1999, as well as for the base period and forecasted period was \$13,331,467. This amount was included in account number 1860740490, Pension Assets Noncur WKG.
- b. No.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 12
Witness: John P. Reddy

Data Request:

Provide the actual capital ratios for Atmos as of June 30, 1999.

Response:

Balance sheet information for the month of June 30, 1999 is not yet available as the quarter closing process is still underway. Atmos will release third quarter earnings on August 11, 1999 and balance sheet data for June will be available at that time.

Atmos actual capital ratios as of May 31, 1999 are as follows:

	<u>Amount</u>	<u>Percent</u>
Long-term Debt*	\$402,797,957	44.39%
Short-term Debt	\$102,956,149	11.35%
Shareholders' Equity	<u>\$401,556,013</u>	<u>44.26%</u>
Total	<u>\$907,310,119</u>	<u>100.00%</u>

*Includes current maturities portion of long-term debt.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 13 a and b
Witness: John P. Reddy

Data Request:

Refer to the Application, Volume 2 of 10, Tab 7, the Testimony of John P. Reddy. On page 4 of the testimony, it is stated that Atmos' objective is to maintain a capital structure comprised of approximately 50 percent equity and 50 percent debt. However, on page 6 of the Reddy Testimony, the summary of Atmos' five-year financial plan for FY 2001 through FY 2003 shows a capital structure comprised of equity ranging between 53 percent and 61.9 percent.

- a. Explain why Atmos' five-year financial plan presents capital structures that are significantly different than Atmos' expressed capital structure objectives.
- b. The equity portion of Atmos' capital structure as of March 31, 1999 was 44.19 percent. The equity portion shown on page 6 of the Reddy Testimony shows a forecasted equity component of 49.8 percent for FY 2000. Explain in detail why it is reasonable to expect such an improvement in the equity in less than a two-year time frame.

Response:

- a. The reasons for the improvement in the capital ratios are explained beginning on Line 18, page 6 of the Reddy Testimony. The improvement reflects a number of assumptions including successfully reducing the impact of weather on earnings and cash flows, issuing new equity through benefits plans and through a public offering, and a return to normal capital spending levels. Weather and capital spending patterns are shown below.

	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999E</u>	<u>2000E</u>
Degree Days - % of normal	101%	98%	95%	TBD*	100%
Capital Spending (Millions)	\$118	\$122	\$135	\$102	\$80

*For the first six months of FY1999, weather conditions were 16% warmer than normal and 13% warmer than 1998.

It is reasonable to assume a reduced negative impact of weather through a combination of a return to more normal weather patterns (experienced as recently as 1997 and 1996) and approval of WNA's as discussed in Mr. Reddy's testimony. It is also reasonable to recognize the reduced capital spending levels made possible by completion of the major service improvement initiatives discussed in Mr. Gruber's testimony. Finally, it is reasonable to recognize the effects of ongoing and anticipated equity

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 13 a and b
Witness: John P. Reddy

issuances. However, it is not possible to know with certainty that all of the Company's assumptions will be realized. For that reason, the five-year financial plan is updated annually. If warmer-than-normal weather should continue, or reappear in future plan years, the improvement in Atmos' capital ratios will be affected. Also, the Company's success in making future acquisitions will affect capital structure and provide opportunities to make adjustments to keep overall debt/equity ratios in line with stated objectives.

- b. The reasons for this improvement in the equity component of capital structure are explained in Mr. Reddy's testimony, beginning on page 6, line 18. Elsewhere in his testimony, Mr. Reddy explains why the Company's debt balances have exceeded target levels. See especially page 4, line 8 through page 5, line 12 of Mr. Reddy's testimony. To recap the reasons for improvement in the equity ratio, they include:

Reducing earnings sensitivity to weather patterns through WNA's, weather hedging/insurance, rate design in other Atmos' LDC jurisdictions that shifts a greater portion of fixed cost recovery to the monthly charge, and similar initiatives.

Reduced levels of capital spending as major service improvement initiatives are completed and placed in service.

Additional equity issuances through Company benefits plans and public offerings. The Atmos Board of Directors will be asked to approve the filing of a Universal Shelf Offering with the SEC at the Company's August 1999 Board meeting. This will enable the Company to issue equity as needed in FY2000 to meet its capital structure objectives, to refinance existing long-term debt, to finance acquisitions and otherwise create financial flexibility.

It is reasonable to expect that the Company can achieve its capital structure objectives through these initiatives in the anticipated time frame.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 14 a through f
Witness: John P. Reddy

Data Request:

Refer to pages 6 and 7 of the Reddy Testimony. For each of the assumptions listed below, indicate how reasonable that assumption is for Atmos. Include any analyses, studies, or other documentation that support these assumptions.

- a. A return to normal long-term weather patterns for the other Atmos utility divisions beginning in FY 2000.
- b. The issuance of \$26 million of new equity in November 1999.
- c. Raising \$20 million of new equity annually through stock plans.
- d. No significant acquisitions. Explain how this assumption is not in conflict with the statements contained on page 5 of the 1998 Atmos Annual Report to shareholders.
- e. Cash flow from depreciation will fund ongoing capital spending requirements.
- f. No new long-term debt issues.

Response:

- a. This is a reasonable assumption as explained in the response to DR Item 13a. The Atmos utilities experienced normal weather conditions in 1996 and 1997 and for planning purposes, it is reasonable to assume a return to normal long-term weather patterns. Further, Atmos is taking other steps to reduce the effects of weather on earnings, cash flow and capital structure as discussed in Mr. Reddy's Testimony and summarized in the response to DR Item 13. This is, therefore, a reasonable assumption.
- b. As explained in the response to DR 13b, the Atmos Board of Directors will be asked to approve the filing of a Universal Shelf Offering with the SEC at the Company's August 1999 Board meeting. This will enable the Company to issue equity as needed in FY2000 to meet its capital structure objectives, to refinance existing long-term debt, to finance acquisitions and otherwise create financial flexibility. This is, therefore, a reasonable assumption.
- c. As explained in the response to DR 15, Assumption 1, the Company's various benefit plans and the Direct Stock Purchase Plan generate new equity issuances of approximately \$20 million annually. This is, therefore, a reasonable assumption.
- d. As explained in the response to DR 15, Assumption 8, Atmos expects to continue to make acquisitions but cannot accurately predict the timing, size

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 14 a through f
Witness: John P. Reddy

or financial implications of future acquisitions. It is, therefore, reasonable to build a base financial plan that excludes the impact of future acquisitions.

- e. Cash flow from depreciation will be sufficient to fund ongoing capital spending requirements if the other assumptions reflected in the financial plan are reasonable. These other assumptions include reducing the effects of weather (explained in the response to DR 13a and b) and reducing capital spending to historical levels (explained in the response to DR 13a). This is, therefore, a reasonable assumption.

- f. No new long-term debt issues will be required if the other assumptions reflected in the financial plan are reasonable. These other assumptions include reducing the effects of weather (explained in the response to DR 13a and b), reducing capital spending to historical levels (explained in the response to DR 13a), and ongoing equity issuances through Company benefit plans and public offerings (explained in the response to DR 15, Assumption 2, and DR 13b).

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 15
Witness: John P. Reddy

Data Request:

Refer to the Reddy Testimony, the attachment titled "FR10(9)(h)11," Sheets 1 and 2 of 3. Explain why each of the assumptions listed on these schedules is reasonable. Include any analyses, studies, or other documentation that support these assumptions.

Response:

The referenced assumptions are:

1. "All numbers are actual through March 1999." This refers to the numbers on the schedule for debt and equity balances for the Base Year Capital Structure schedules. Actual debt and equity balances are reflected for the months of September 1998 through March 1999 (latest month available before the rate case filing date) with financial plan estimates reflected thereafter.
2. "Assumes base stock capital growth rate of \$20 million per year via various plans." Atmos has an Employee Stock Ownership Plan (ESOP) for employees pursuant to which Atmos may make a matching contribution for the account of the participant in an amount determined each year by the Board of Directors. (Prior to 1999, the Company sponsored a 401(k) savings plan for the United Cities Division employees (UCG Plan) pursuant to which the Company made certain matching contributions.) Atmos also has a Direct Stock Purchase Plan ("DSPP") with a Dividend Reinvestment feature for DSPP participants. These plans produced increases in the Company's equity balances of over \$14 million in FY1998 and nearly \$10 million in the first six months of FY1999.

	<u>1998 Shares Issued*</u>
ESOP	52,473
DSPP	531,353
UCG Plan	<u>55,500</u>
	639,326

*As shown on page 37 of the 1998 Annual Report to Shareholders.

It is reasonable to assume that these plans will continue to add roughly \$20 million annually to Atmos' equity base.

3. "1999 monthly Net Income is per the monthly budget." As part of the five-year financial plan, detailed monthly budgets are prepared for the initial year

Western Kentucky Gas Company
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KPSC Data Request Dated July 16, 1999
DR Item 15
Witness: John P. Reddy

of the plan. 1999 is the first year of the latest plan and it is reasonable to use the monthly net income figures from the plan to forecast net income for April through September, the end of Atmos' fiscal year.

4. "2000 monthly net income is patterned after the 1999 budget." It is reasonable to start with 1999's monthly net income and make adjustments for anticipated differences in FY2000, the most significant of which are discussed in Assumption 5, below.
5. "Net income is adjusted monthly for: 1) additional short-term interest based on a 6% annual rate on \$22,000,000 overall Net Income shortfall due to warm weather; 2) reduced short-term interest due to any issuance of equity (assumed to pay down ST debt); and 3) additional depreciation related to various service initiatives."

The current five-year financial plan was completed in September of 1998. Since then, certain assumptions that were relied upon in forecasting 1999 results have not borne out, requiring that appropriate adjustments be made to 1999 figures and subsequent balances. With regard to assumption 1) above, plan numbers for 1999 monthly net income have been adjusted to reflect the effects of lower net income (estimated at \$22 million below plan) due to the impact of significantly warmer than normal weather. One impact of reduced net income is the need to increase short-term borrowings in 1999 above plan levels, creating higher short-term interest expense (6% interest rate applied to \$22 million increased short-term debt balance to offset decline in net income). With regard to assumption 2), new equity issuances, whether public issues or through benefits plans, are assumed to reduce short-term borrowing requirements and, hence, short-term debt balances. With regard to assumption 3), additional annual depreciation expense has been reflected associated with the in-service dates of the service improvement initiatives discussed in Mr. Gruber's testimony, but not fully budgeted in the September five-year financial plan.

6. "Dividends are adjusted to reflect any new issuance of equity; they are calculated on the monthly ending shares outstanding." This is a straightforward assumption since quarterly dividends are paid on all shares outstanding, including those issued to the public and those issued through various Company benefits plans.
7. "Assumed dividend rate is \$1.10 for FY1999, \$1.14 for 2000, and \$1.18 for 2001." \$1.10 is the actual indicated dividend rate for 1999 (\$0.275 per quarter). Although it is up to the Atmos Board to establish future dividend

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 15
Witness: John P. Reddy

rates, as indicated on page 52 of the 1998 Annual Report to Shareholders, Atmos has increased the dividend for 11 consecutive years, and by 4 cents annually in each of 1996, 1997, 1998 and 1999. It is therefore reasonable to budget 4 cent annual increases in the dividend for financial plan purposes.

8. "Long-term debt balances are per financial plan, with no additional issuances for acquisitions." Atmos has completed five major acquisitions over the past twelve years and expects to continue to make acquisitions in the future. However, as discussed on page 5 of the 1998 Annual Report to Shareholders, "We continually evaluate opportunities. However, the decision is not solely in our hands." Because it is impossible to predict with any degree of accuracy the timing, size and financial implications of future acquisitions, Atmos has not included any acquisitions in its financial plan. However, should Atmos complete a merger transaction within the plan period, that would likely present the opportunity to accelerate or maintain the Company's objective of achieving a 50/50 debt/equity capital structure. For example, many utility acquisitions are accomplished by the acquiring company issuing stock to be exchanged for shares of the acquired company, thereby raising the percentage of equity in the capital structure of the acquiring company.

9. "Short-term debt is per the 5-year financial plan, reduced for equity issuances, increased for Net Income shortfall due to warm weather in 1999, increased for additional dividends related to stock issuances, and increased for tax-effected change in short-term interest (one iteration only)." These assumptions and their reasonableness have been explained in items 1-8, above. For ease of modeling, the after-tax amount of interest on the additional short-term debt was added to the month of April 1999; hence the reference to "one iteration only."

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KPSC Data Request Dated July 16, 1999
DR Item 16
Witness: Marks

Data Request:

Refer to the Application, Volume 2 of 10, Tab 12, the Testimony of Michael Marks. On page 4 of the testimony it is stated "Central to the program are two important provisions of the agreement between Western and the Commission." In the August 10, 1995 Order in Case No. 95-010, the Commission stated:

Thus, the Settlement merely establishes a framework for developing a program which will qualify for rate recovery under KRS 278.285. No specific programs or related cost recovery mechanism have been included. Therefore, the Commission makes no decision or findings of fact related to any portion of the DSM provisions included in the Settlement. (Footnote – Case No. 95010, August 10, 1995 Order, at 4.)

In light of the Commission's statement in Case No. 95-010, explain in detail what agreement is being referenced in Mr. Marks testimony on page 4.

Response:

Correctly stated, Mr. Marks was referring to the Commission's understanding of the process Western had agreed to undertake in implementing the program. The agreement itself was between the various parties to Case No. 95-010, as a result of the settlement of that case. The Commission approved the overall settlement and the program was implemented within the framework of that settlement.

Western Kentucky Gas Company
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KPSC Data Request Dated July 16, 1999
DR Item 17.a.
Witness: Marks

Data Request:

17. Refer to the Marks Testimony, page 4. Concerning the Western Demand Side Management ("DSM") Collaborative:

a. Identify the members of the Western DSM Collaborative at its inception and as of June 30, 1999.

Response:

Inception:

J. F. Carnahan, Senior V. P., Technical Services, WKG
Hon. Ann Louise Chevront, Assistant Attorney General, Office of the Attorney General, Commonwealth of Kentucky
Scott Crocker, Executive Director, Cumberland Trace Legal Services
Kip Bowmar, Executive Director, Kentucky Association for Community Action, Inc.

As of June 30, 1999:

W. J. Senter, V. P., Rates and Regulatory Affairs, WKG
Hon. Ann Louise Chevront, Assistant Attorney General, Office of the Attorney General, Commonwealth of Kentucky
Scott Crocker, Executive Director, Cumberland Trace Legal Services
Kip Bowmar, Executive Director, Kentucky Association for Community Action, Inc.

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 17. b.
Witness: Marks**

Data Request:

17. Refer to the Marks Testimony, page 4. Concerning the Western Demand Side Management ("DSM") Collaborative:

b. Provide copies of the bylaws or other documents that govern the operation of the Western DSM Collaborative.

Response:

A copy of the bylaws is attached.

WESTERN KENTUCKY GAS COMPANY
BY-LAWS OF THE DSM COLLABORATIVE

PURPOSE: The intent of these by-laws is to govern the process for operational procedures of the Western Kentucky Gas Company Demand-Side Management Collaborative.

ARTICLE I MEMBERSHIP

Membership in the Collaborative is to be representative of Residential customers of Western Kentucky Gas Company. There shall be no individual members.

Section 1 -- Executive Committee

The founding members of the Collaborative are:

(1) Community Action Agencies

Kip Bowman	Primary
Staff Member KAC	Alternate
Staff Member KAC	Alternate

(2) Cumberland Trace Legal Services

Scott Crocker	Primary
Norma Perry	Alternate
Margaret Ryan	Alternate

(3) Office of the Attorney General, Kentucky

Ann Louise Chevront	Primary
Staff Member/Att'y Gen.	Alternate
Staff Member/Att'y Gen.	Alternate

(4) Western Kentucky Gas Company

Jay Carnahan	Primary
Larry Moore	Alternate

(5) Kentucky Division of Energy (Non-Voting)

Primary
Alternate

(6) Public Service Commission of Kentucky
(Non-Voting)

Primary
Alternate

Section 2 -- Technical Committee Membership

(1) Audubon Area Community Services

Sheila White	Primary
	Alternate

(2) Blue Grass Community Action Agency

Houston Jones	Primary
	Alternate

(3) Community Action of Southern Kentucky

Betty Vincent	Primary
	Alternate

(4) Pennyrile Allied Community Services

Martha McGill	Primary
	Alternate

(5) West Kentucky Allied Services

Thelma Sayers	Primary
	Alternate

(6) Western Kentucky Gas Company

Jim Allison	Primary
	Alternate

(7) Western Kentucky Gas Company

Garry Milligan	Primary
Gary Smith	Alternate

(8) Western Kentucky Gas Company

Ben Boyd	Primary
	Alternate

(9) State Energy Assistance Branch

Gary Brown	Primary
	Alternate

Section 3 -- New Members

A petition for membership may be made by filing a written request with the Chairperson of the Executive Committee. Application for membership will be considered by the entire membership and may be added by unanimous approval of the Collaborative.

Section 4 -- Duties of Membership

Members will be responsible for the following:

- >> Designate in writing one (1) voting representative and up to two (2) alternates to represent a customer member
- >> Attend collaborative meetings in person, by proxy, or by telephone
- >> Stay informed on issues relating to DSM programs and activities
- >> Review, recommend, and endorse DSM programs for Western Kentucky Gas.

Section 5 -- Termination of Membership

Any member groups may voluntarily terminate their membership at any time via filing written notice with the Chairperson.

Automatic termination shall occur if a member fails to attend personally, by telephone, or by proxy, three (3) consecutive meetings of the Collaborative. Consideration for returning to the Collaborative may be given by means of unanimous vote.

ARTICLE II VOTING RIGHTS

Section 1 -- All votes of the Executive Committee require a unanimous agreement for passage. Abstaining votes shall be considered agreement. Passage or recommendations of the Technical Committee requires a majority vote. Abstaining votes of the Technical Committee shall be considered non-votes.

Section 2 -- Each member shall have one (1) vote to be cast by the authorized representative or designated alternate.

Section 3 -- Proxy votes may be made in writing. Only the authorized representative may submit proxy votes.

ARTICLE III DECISION MAKING

Section 1 -- General Decision-Making

All voting members of the Executive Committee will vote on issues affecting Western Kentucky Gas DSM programs, including

collaborative membership and rule-making. If a member is absent from a meeting and all other members present agree upon an item, the issue will be outlined in the meeting minutes, and the absent member will have five (5) working days upon receipt of the minutes to present an objection to the issue, if necessary.

Section 2 -- Sub-Committee Decision Making

The Technical Committee will develop, consider, and recommend DSM programs to the Executive Committee after deciding by majority vote.

Section 3 -- Changes in Programs

Once a program is established, the terms of the program may be changed only by unanimous consent.

ARTICLE IV DISPUTE RESOLUTION

Section 1 -- In the event a unanimous decision cannot be reached by the utility members of the Executive Committee, the members shall determine whether the impasse is informational or policy-based.

Section 2 -- In the event an informational dispute exists, the Collaborative may agree on an expert to analyze the disputed information and advise them as to what is accurate.

Section 3 -- If a policy dispute should occur, the Collaborative or sub-group may secure an outside facilitator to assist the group with reaching an acceptable agreement.

Section 4 -- No action will be taken without a unanimous agreement. Abstaining votes shall be considered agreement.

ARTICLE V LEADERSHIP

Section 1 -- A Chairperson may convene and preside at collaborative meetings. Additionally, the sub-group may have a Chairperson.

Section 2 -- The Collaborative may select the Chairperson by unanimous vote of the members and may rotate among the members every year. The sub-group may select a Chairperson by a unanimous vote on an annual basis. The Chairperson may serve for a twelve-month period with the election of a new Chairperson to be done in the month of December.

ARTICLE VI MEETINGS

Section 1 -- Meetings of the Collaborative shall be held at least once per quarter.

Section 2 -- The Technical Committee sub-group may meet monthly (or more frequently at the call of

the Chairperson of the Collaborative or that sub-group or at least two [2] members of the Collaborative or sub-group). However, the sub-group must meet once per quarter.

Section 3 -- Reasonable written notice shall be given to all members in advance of meeting, providing the date, time, and location of the meetings.

Section 4 -- Minutes shall be kept of all meetings and circulated for approval to the membership.

ARTICLE VII CONTRACTS, CONSULTANTS, AND ADMINISTRATION

Section 1 -- Costs for consultants and other outside entities retained by the sub-group shall be recovered only from the funds available from the WKG Care's DSM program.

Section 2 -- Contracts between the Collaborative, consultants, and outside entities shall be authorized by the Collaborative and signed by the Chairperson.

Section 3 -- All contracts with consultants and outside entities will specify:

(A) The name of a contact person from the Collaborative or sub-group;

(B) That all parties to the contract shall have access to information submitted by the consultant or outside entity.

ARTICLE VIII AMENDMENT

Section 1 -- Amendment of Western Kentucky Gas' Demand-Side Management By-Laws shall only be approved by unanimous consent of all Collaborative members.

Section 2 -- Any amendment proposal to these by-laws shall be made by a member in writing; full text of the amendment shall be provided to all members of the Collaborative at least ten (10) days prior to the meeting at which the amendment is to be voted upon.

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 17. c.
Witness: Marks**

Data Request:

17. Refer to the Marks Testimony, page 4. Concerning the Western Demand Side Management ("DSM") Collaborative:

c. Identify the chairperson of the Western DSM Collaborative as of June 30, 1999

Response:

W. J. Senter, V. P., Rates and Regulatory Affairs, WKG

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 18
Witness: Marks

Data Request:

18. Refer to the Marks Testimony, page 8. For each of the measures ultimately selected for inclusion in the WKG CARES program, provide the results of the following DSM benefit cost test:
 - a. Total Resource Cost ("TRC").
 - b. Utility Cost Test ("UCT").
 - c. Ratepayer Impact Measure ("RIM").
 - d. Participant Test ("PT").

Response:

See attachment entitled "Pre-Implementation Benefit/Cost Screening Results" dated October 25, 1996, Page 7, Table 1.

ATTACHMENT

D.R. 18
D.R. 23

**WESTERN KENTUCKY GAS COMPANY
COMMUNITY ACTION RESIDENTIAL ENERGY SERVICES**

**PRE-IMPLEMENTATION
BENEFIT/COST SCREENING RESULTS**

Prepared by



HAMPTON STRATEGIES, INC.
898 Veterans Memorial Highway
Hauppauge, New York 11788
(516) 234-2400

October 25, 1996

INTRODUCTION

The Western Kentucky Gas Company Demand-Side Management Program Collaborative (Collaborative) is seeking to offer a number of energy conservation/efficiency measures to low-income customers of Western Kentucky Gas (WKG) through the Western Kentucky Gas Company Community Action Residential Energy Services (WKG CARES) Program. This document describes the results of preliminary benefit/cost analyses performed by Hampton Strategies, Inc. (Hampton) for the specific measures considered by the Collaborative.

As part of the WKG CARES Program design, the Collaborative prepared a preliminary list of demand-side management (DSM) measures for consideration. These measures were developed with input from the five community action agencies through which the WKG programs will be implemented. These five agencies are currently providing energy-related services to the low-income community. The preliminary measures are:

- 1) Attic Insulation
- 2) Clean and Tune Furnace
- 3) Water Heater Replacement
- 4) Furnace Replacement
- 5) Wall Insulation
- 6) Floor Insulation
- 7) Duct Repair
- 8) Duct Insulation
- 9) Water Heater Wraps
- 10) Infiltration Reduction

Hampton was retained by the Collaborative to provide consulting services related to the design and evaluation of the WKG CARES Program. As part of this effort, Hampton performed a series of benefit/cost analyses for these measures based on estimates of measure costs, avoided gas and electricity costs, measure impacts, and other necessary input assumptions.

It should be recognized that, at this pre-implementation/design stage, there are no WKG-specific data regarding program costs and impacts. Specific assumptions are made based on the experience of the Weatherization Directors from the five community action agencies and the State Weatherization Office, as well as Hampton's experience with similar DSM programs offered elsewhere. These assumptions allow for the assessment of estimated benefits and costs of these measures, and hence, provide program design guidance. Actual results may vary and an ongoing program evaluation

effort will serve to measure these results and allow for subsequent program redesign and optimization.

This document describes the DSM measures analyzed, the benefit/cost tests conducted, and the results of those tests. Hampton's recommendations regarding measures that can be included in the WKG CARES are located at the end of this document.

DESCRIPTION OF MEASURES

This section describes the measures considered as part of the WKG CARES Program design. Each of the measures is described along with the cost and impact assumptions used in the benefit/cost analyses. More detailed information regarding the assumptions used in the analyses are provided in the DSM Screening and Assessment Assumption Worksheets provided in Attachment A. Note that all cost estimates described in each measure and submeasure include materials, labor, and an overhead factor of 20%.

- 1) **Attic Insulation:** Install attic insulation in homes where such insulation is either nonexistent or insufficient. This measure will reduce thermal loss through the attic and thereby increase the home's thermal efficiency. The Weatherization Directors and the State Weatherization Office estimate that attic insulation can save 15-18% on heating bills in homes that have no existing attic insulation and 10-15% in homes that have some attic insulation. These estimates are reasonably consistent with estimates used elsewhere. An estimate of 15% energy savings was used in the benefit/cost analyses, based on the assumption that homes taking this measure would be those with minimal or no attic insulation. Based on experience, the Weatherization Directors and the State Weatherization Office estimate that the cost of this measure is approximately \$400 per home.
- 2) **Clean and Tune Furnace:** Repair, clean, and tune existing furnaces to increase furnace efficiency. The State Weatherization Office estimates that this measure could result in 8-10% energy savings. Based on these estimates, Hampton assumed an 8% energy savings in the benefit/cost analyses. Based on experience, the State Weatherization Office estimates that the costs of this measure are approximately \$150 per home.
- 3) **Water Heater Replacement:** Replace inefficient gas water heaters and older electric water heaters with new gas water heaters. In order to differentiate between these two cases, the following submeasures were analyzed:
 - a) **Water Heater Replacement (Gas-to-Gas):** Replace older, inefficient gas water heaters with new gas water heaters. The following assumptions were made: 1) the replacement water heater has an efficiency factor of .54 (current NAECA minimum); 2) the older water heater has an efficiency factor of .50, which is probably conservative since many older water heaters often have lower efficiency factors; 3) the installation of low-flow shower heads are included as part of this measure. Consistent with other programs offering low-flow shower heads, it is estimated that this will

result in a further savings of 5%. Based on experience, the Weatherization Directors estimate that the cost of a new gas water heater is approximately \$700 per home. The low-flow shower heads are estimated to cost \$20 per home. The costs are consistent with similar programs conducted elsewhere.

- b) **Water Heater Replacement (Electric-to-Gas):** Replace older electric water heaters with new gas water heaters where gas service to the house already exists and the electric water heater is at least 5 years old. The following is assumed: 1) the replacement water heater has an efficiency factor of .54 (current NAECA minimum); 2) the older electric water heater has an efficiency factor of .70; 3) low-flow shower heads would be installed as part of this measure to result in a further savings of 5%. Based on experience, the Weatherization Directors estimate that the costs of a new water heater are approximately \$700 per home while the low-flow shower heads are estimated to cost an additional \$20 per home.
- 4) **Furnace Replacement:** Replace inefficient gas furnaces with either standard or high-efficiency gas furnaces. In order to differentiate between these two cases, the following submeasures were analyzed:
- a) **Furnace Replacement (Standard Efficiency):** Replace existing inefficient gas furnaces with standard efficiency gas furnaces. It is assumed that: 1) the existing furnace has an AFUE of 60% (which is conservative, since it is the maximum efficiency for which this measure will be implemented); 2) the replacement furnace has an AFUE of 82%, close to the NAECA minimum). Based on experience, the Weatherization Directors estimate that the cost of a new standard efficient furnace is approximately \$1200 per home.
 - b) **Furnace Replacement (High Efficiency):** Replace existing inefficient gas furnaces with high-efficiency gas furnaces (assuming technical feasibility given the need for sidewall venting). These assumptions were used: 1) the existing furnace has an AFUE of 60% (which is conservative, since it is the maximum efficiency for which this measure will be implemented) and 2) the replacement furnace has an AFUE of 90%. Based on experience, the Weatherization Directors estimate that the cost of a new high efficient furnace is approximately \$1450 per home.
- 5) **Wall Insulation:** Install wall insulation in homes where such insulation is either nonexistent or insufficient. This measure will reduce thermal loss through the walls and increase the home's thermal efficiency. The Weatherization Directors and the State Weatherization Office estimate that attic insulation can save up to 15% on heating bills. Hampton assumed an 8% energy savings in the benefit/cost analyses, which is also consistent with the estimate used for attic insulation (in that an average home would save more energy from attic insulation than wall insulation). Based on experience, the Weatherization

Directors and the State Weatherization Office estimate that the cost of this measure is approximately \$500 per home.

- 6) **Floor Insulation:** Install floor insulation in mobile homes where such insulation is either nonexistent or insufficient in order to reduce thermal loss through the floor and increase the mobile home's thermal efficiency. The Weatherization Directors and the State Weatherization Office estimate that floor insulation can save up to 15% on heating bills in mobile homes. An estimate of 5% energy savings was used in the benefit/cost analyses. Based on experience, the Weatherization Directors and the State Weatherization Office estimate that the cost of this measure is approximately \$400 per home.
- 7) **Duct Repair:** Repair ducts in homes where such ducts leak into unconditioned spaces in order to improve the efficiency of the space heating system. The State Weatherization Office and the Weatherization Directors estimate that this measure can save 15% on heating bills, and this estimate is reasonably consistent with estimates used elsewhere. Hampton assumed a 10% energy savings in the benefit/cost analyses. Based on experience, the Weatherization Directors and the State Weatherization Office estimate that the cost of this measure is approximately \$150 per home.
- 8) **Duct Insulation:** Install insulation on ducts in unconditioned portions of the home in order to improve the efficiency of the space heating system. The State Weatherization Office estimates that this measure can save 10% on heating bills. An estimate of 5% energy savings was used in the benefit/cost analyses. Based on experience, the Weatherization Directors and the State Weatherization Office estimate that the cost of this measure is approximately \$200 per home.
- 9) **Water Heater Wraps:** Install insulating wraps on gas water heaters to reduce thermal losses. The State Weatherization Office estimates that this measure would save 1-2% of the water heating bills. An estimate of 1% reduction in water heating energy use was assumed in the benefit/cost analyses. The State Weatherization Office estimates the cost of this measure at approximately \$20 per home.
- 10) **Infiltration Reduction:** Reduce air infiltration through the installation of caulking, weather stripping, etc. Based on experience elsewhere, Hampton assumed an estimate of 10% savings of space heating energy use in the benefit/cost analyses. The State Weatherization Office estimates the cost of this measure at approximately \$250 per home.

DESCRIPTION OF BENEFIT/COST TESTS

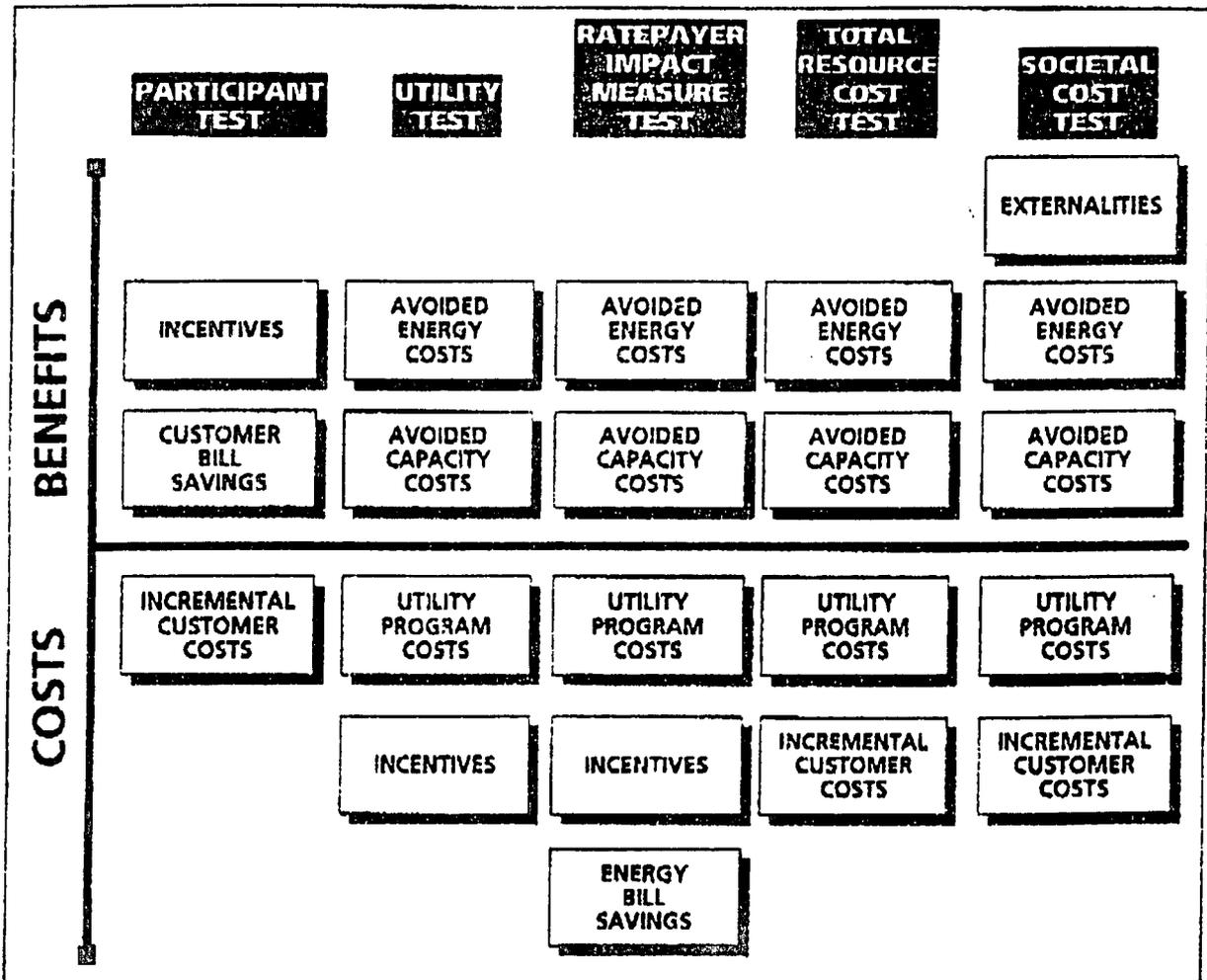
The benefit/cost tests utilized in the analyses of the proposed DSM measures for the WKG CARES program are those described in the *Standard Practice Manual: Economic Analysis of Demand-Side Management Programs* (Standard Practice Manual), jointly developed by the California Public Utilities Commission and the California Energy Commission. A brief description of each of these tests follows:

- The **Participant Test** compares the bill savings plus incentives provided to customers with the costs of the measure. This test addresses the net benefits of the measure from the perspective of those customers who participate in the program.
- The **Utility Test** compares the reductions in the utility's supply costs to the costs to the utility to implement the program (i.e., administrative and incentive costs). This test addresses the net costs of providing a resource option from the perspective of the utility.
- The **Ratepayer Impact Measure (RIM) Test** addresses what could happen to customer rates as a result of changes in utility revenues and operating costs associated with the measure. Sometimes referred to as the "Non-Participant Test," this test addresses the perspective of the utility customer who does not participate in the program since it reflects changes in rates without the net benefits of direct participation.
- The **Total Resource Cost (TRC) Test** compares the reduction in the utility's supply costs to the incremental costs of the measure (i.e., administrative and customer costs). This test is the broadest perspective in that it represents the net benefits to society, including both participants and non-participants. (A variant of the TRC Test is the "Societal Cost Test" which also includes the net benefits of externalities. The Societal Perspective was not considered in this analysis).

The specific benefit and cost components of each of these tests is shown in Figure 1.

In this document, the results of the benefit/cost analysis are expressed as a benefit/cost ratio. A result of 1.0 indicates benefits are equal to costs, a result less than 1.0 indicates costs are greater than benefits, and a result greater than 1.0 indicates benefits are greater than costs.

Figure 1
 STANDARD COST-BENEFIT TESTS



It should be noted that the benefit/cost tests were conducted independently for each measure. In other words, it was assumed that the specific measure would be implemented absent other measures. While this provides an indication of the attractiveness of the measure from various perspectives, it does not take into account the interactive effects of many of these measures. For example, a furnace replacement measure might reduce energy consumption by "X" if no other changes are made to the house. Similarly, attic insulation might reduce energy consumption by "Y" if no other changes are made to the house. However, if both of these measures are implemented, the net reduction in energy use will be less than "X+Y."

Given the large number of permutations that arise from the various pairing of measures, the lack of WKG program-specific data, the lack of information relative to the likelihood of each pairing, and the lack of data relative to the "interactive effects" of each pairing, accounting for this interactive effect was not considered to be necessary at the design phase of the program. Instead, conservative estimates were used for energy impacts for each measure in this pre-implementation benefit/cost analysis. Measures that pass this analysis are expected to have a reasonable probability of being cost-effective, despite interactive effects.

RESULTS

The results of the benefit/cost analyses are presented in Table 1.

Table 1
BENEFITS/COST ANALYSIS RESULTS

Measure	Participant Test	Utility Test	RIM Test	TRC Test
1) Attic Insulation	2.89	1.17	0.47	1.27
2) Clean & Tune Furnace	2.71	0.98	0.42	1.03
3) Water Heater Replacement				
a. Gas-to-Gas	1.30	0.15	0.12	0.16
b. Electric-to-Gas	1.73	0.62	0.52	0.64
4) Furnace Replacement				
a. Standard Efficiency	2.06	0.65	0.36	0.70
b. High Efficiency	2.09	0.67	0.36	0.72
5) Wall Insulation	1.81	0.50	0.31	0.55
6) Floor Insulation	1.62	0.39	0.26	0.42
7) Duct Repair	3.14	1.23	0.46	1.28
8) Duct Insulation	1.79	0.46	0.28	0.48
9) Water Heater Wraps	1.46	0.21	0.16	0.22
10) Infiltration Reduction	3.02	1.25	0.49	1.37
Aggregate Results:	2.20	0.77	0.41	0.82

As indicated on Table 1, each of the measures pass the Participant Test (i.e., the results are 1.0), which is to be expected since participants receive the benefits of the measure and the costs of the measure are all paid for by the WKG CARES program. Each of the measures also fail the RIM Test (i.e., the results are 1.0), which is typical of measures that reduce overall energy consumption. The most relevant test for these types of programs is the TRC Test since it offers the broadest perspective.¹ As indicated in Table 1, only four of the measures pass the TRC Test.

In order to provide some options regarding the mixture of measures to be included in the WKG CARES Program, the following three scenarios were assessed:

1. Implement Only Those Measures That Independently Pass the TRC Test
2. Implement The Maximum Number of Measures That Pass TRC In Aggregate
3. Develop Cost-Sharing Arrangements to Allow For Full Spectrum of Measures to be Implemented

Each of these three scenarios are discussed as follows:

FIRST SCENARIO: *Implement Only Those Measures That Independently Pass the TRC Test*

The most stringent criteria for measure selection is for each measure to pass the TRC Test. In this case the only measures to be implemented would be:

- Attic Insulation
- Clean and Tune Furnace
- Duct Repair
- Infiltration Reduction

In this scenario, the three-year direct measure expenditures by WKG CARES would be approximately \$500,000, given the number of participants per measure estimated by the State Weatherization Office. This scenario assumes that all program and measure costs are borne by the WKG CARES Program.

SECOND SCENARIO: *Implement The Maximum Number of Measures That Pass TRC In Aggregate*

This scenario is intended to maximize the number of measures implemented and recognize the importance of the TRC Test, given full funding by WKG CARES. The procedure used was to drop measures beginning with the lowest TRC Test results until

¹ In the case of measures, such as these where the full measure cost is assumed by the sponsoring utility, the Utility Test is essentially the same as the TRC Test. The small difference in test results is due to different discount rates being applied to each test.

the aggregate TRC Test result reached 1.0 or better. As a result, the following measures can be implemented with an aggregate TRC Test result of 1.02:

- Attic Insulation
- Clean & Tune Furnace
- Water Heater Replacement (Electric-to-Gas)
- Furnace Replacement (Standard Efficiency)
- Furnace Replacement (High Efficiency)
- Duct Repair
- Infiltration Reduction

In this scenario, the three-year direct measure expenditures by WKG CARES would be approximately \$784,000, given the number of participants per measure estimated by the State Weatherization Office.

THIRD SCENARIO: *Develop Cost-Sharing Arrangements to Allow For Full Spectrum of Measures to be Implemented*

In this scenario, we examined the level of cost sharing needed between WKG CARES and the CAP Agencies in order to make each measure pass the TRC Test. For those measures which do not pass the TRC Test (see Table 1) the amount of WKG CARES funding was modified to the point where the TRC Test would equal 1.0. Those specific measures and the amount of funding to be picked up by the CAP Agencies are listed in Table 2.

Under this scenario, all of the measures could be implemented.² Full measure costs would be paid by WKG CARES for the following programs:

- Attic Insulation
- Clean and Tune Furnace
- Duct Repair
- Infiltration Reduction

Costs for the measures in Table 2 would be shared, as indicated, by WKG CARES and the CAP Agencies.

² The exception is water heater wraps. Hampton recommends that the WKG CARES Program does not offer this measure regardless of its economics. Improperly installed, a water heater wrap on a gas water heater can pose a safety risk. In addition, some manufacturers will void warranties if such wraps are installed.

Table 2
COST SHARING SCENARIO

Measure	Total Funding	WKG CARES	CAP Agencies
Water Heater Replacement (<i>Gas-to-Gas</i>)	\$720	\$116	\$604
Water Heater Replacement (<i>Electric-to-Gas</i>) ³	\$720	\$244	\$476
Furnace Replacement (<i>Standard Efficiency</i>)	\$1,200	\$836	\$364
Furnace Replacement (<i>High Efficiency</i>)	\$1,450	\$1,039	\$411
Wall Insulation	\$500	\$270	\$230
Floor Insulation	\$400	\$167	\$233
Duct Insulation	\$200	\$94	\$106

In this scenario, the three-year direct measure expenditures by WKG CARES would be approximately \$830,000, given the number of participants per measure estimated by the State Weatherization Office.

³ Hampton suggests that the acceptance of this measure not be based solely on the TRC test result, since its purpose is not energy savings, but energy cost reduction for low-income customers.

RECOMMENDATIONS

Based on the results of the benefit/cost analyses, and other considerations as discussed, the following recommendations are offered regarding the design of the WKG CARES Program:

1. The Third Scenario should be considered. This scenario will allow for the maximum contribution by WKG CARES to take cost-effective DSM measures and will also provide the greatest benefit to low-income customers, maximize the financial contribution by WKG CARES to the ongoing efforts of the CAP Agencies, and protect the interests of all WKG customers. In addition, this scenario allows each measure to pass the TRC test independently, as well as in aggregate.
2. The Water Heater Wrap measure should not be implemented due to the safety and equipment warranty issues previously mentioned.
3. The Attic Insulation measure should only be implemented in homes where there is no, or very minimal, existing attic insulation.
4. Care should be taken to limit the number of measures which WKG funds in the same home since the interactive effects can reduce the cost-effectiveness of each measure. This is particularly true in homes where gas is not the sole means of space heating (e.g., homes that have wood-burning stoves).
5. Consideration should be given to the implementation of a Furnace Upgrade measure in place of the two furnace replacement measures. This measure assumes that the CAP Agency would have installed a standard efficiency (82% AFUE) furnace absent WKG CARES and provides solely for an upgrade in furnace efficiency to 90% AFUE. The test results of this measure are as follows:
 - Participant Test: 2.24
 - Utility Test: 0.76
 - RIM Test: 0.39
 - TRC Test: 0.82

If this measure were adopted and applied under the Third Scenario, the cost sharing would be as follows:

- WKG Cares: \$204 per participant
- CAP Agencies: \$46 per participant

ATTACHMENT A

**DSM SCREENING AND ASSESSMENT ASSUMPTION
WORKSHEETS**

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
1	Attic Insulation	3	Residential Low-Income	1	150
				2	200
				3	200
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:		Pre-Condition		Post-Condition	
Description					
Measure/Device Lifetime (Yrs.)		20		20	
Equipment Cost (Per/Unit)		0		\$320	
Annual Incremental O&M Costs		\$0		\$0	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		750		638	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$320	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$80	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

**WKG CARES PROGRAM
DSM SCREENING AND ASSESSMENT ASSUMPTIONS**

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLET. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
2	Clean & Tune Furnace	3	Residential Low-Income	1	150
				2	200
				3	200
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:		Pre-Condition		Post-Condition	
Description					
Measure/Device Lifetime (Yrs.)		10		10	
Equipment Cost (Per/Unit)		-		\$120	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		65%		70%	
Annual Energy Consumption:					
Natural Gas (Therms)		750		690	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$120	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$30	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

**WKG CARES PROGRAM
DSM SCREENING AND ASSESSMENT ASSUMPTIONS**

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
3A	Water Heater Replacement (Gas-to-Gas)	3	Residential Low-Income	1	30
				2	50
				3	50
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:		Old Gas Water Heater		New Gas Water Heater	
Description					
<u>Measure/Device Lifetime (Yrs.)</u>		13		13	
<u>Equipment Cost (Per/Unit)</u>		-		\$580	
<u>Annual Incremental O&M Costs</u>		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		.50		.54	
Annual Energy Consumption:					
Natural Gas (Therms)		250		208	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$580	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$140	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Water Heat		Residential Water Heat	
LOAD SHAPES:		Residential Water Heat		Residential Water Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
3B	Water Heater Replacement (Electric-to-Gas)	3	Residential Low-Income	1	30
				2	50
				3	50
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:					
Description		Electric Water Heater		Gas Water Heater	
Measure/Device Lifetime (Yrs.)		13		13	
Equipment Cost (Per/Unit)		-		\$580	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		.70		.54	
Annual Energy Consumption:					
Natural Gas (Therms)		-		208	
Electricity (kWh)		4,950		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$580	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$140	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Water Heat		Residential Water Heat	
LOAD SHAPES:		Residential Water Heat		Residential Water Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
4A	Furnace Replacement (Standard Efficiency)	3	Residential Low-Income	1	20
				2	30
				3	30
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:					
Description		Old Furnace		New Furnace (Standard Efficiency)	
Measure/Device Lifetime (Yrs.)		18		18	
Equipment Cost (Per/Unit)		-		\$960	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		60% AFUE		82% AFUE	
Annual Energy Consumption:					
Natural Gas (Therms)		750		549	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$960	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$240	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
4B	Furnace Replacement (High Efficiency)	3	Residential Low-Income	1	20
				2	30
				3	30
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE	DSM CASE		
MEASURE/DEVICE DATA:					
Description		Old Furnace	New Furnace (High Efficiency)		
Measure/Device Lifetime (Yrs.)		18	18		
Equipment Cost (Per/Unit)		-	\$1,160		
Annual Incremental O&M Costs		-	-		
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		60% AFUE	90% AFUE		
Annual Energy Consumption:					
Natural Gas (Therms)		750	500		
Electricity (kWh)		-	-		
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-	\$1,160		
Dealer/Other Rebate		-	-		
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-	-		
One-Time Fixed Costs		-	-		
Recurring Per Part. Costs		-	-		
One-Time Per Part. Costs		-	\$290		
RATES:		Gas Residential	Gas Residential		
AVOIDED COSTS:		Residential Space Heat	Residential Space Heat		
LOAD SHAPES:		Residential Space Heat	Residential Space Heat		

**WKG CARES PROGRAM
DSM SCREENING AND ASSESSMENT ASSUMPTIONS**

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLET. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
5	Wall Insulation	3	Residential Low-Income	1	75
				2	100
				3	100
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA: Description		Pre-Condition		Post-Condition	
<u>Measure/Device Lifetime (Yrs.)</u>		20		20	
<u>Equipment Cost (Per/Unit)</u>		-		\$400	
<u>Annual Incremental O&M Costs</u>		-		-	
LOAD IMPACT ASSUMPTIONS:					
<u>Efficiency Rating</u>		N/A		N/A	
Annual Energy Consumption:					
<u>Natural Gas (Therms)</u>		750		690	
<u>Electricity (kWh)</u>		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$400	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$100	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
6	Floor Insulation	3	Residential Low-Income	1	75
				2	100
				3	100
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:		Pre-Condition		Post-Condition	
Description					
Measure/Device Lifetime (Yrs.)		20		20	
Equipment Cost (Per/Unit)		-		\$320	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		750		713	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$320	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$80	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
7	Duct Repair	3	Residential Low-Income	1	150
				2	200
				3	200
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:					
Description		Pre-Condition		Post-Condition	
Measure/Device Lifetime (Yrs.)		10		10	
Equipment Cost (Per/Unit)		-		\$120	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		750		875	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$120	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$30	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

**WKG CARES PROGRAM
DSM SCREENING AND ASSESSMENT ASSUMPTIONS**

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
8	Duct Insulation	3	Residential Low-Income	1	100
				2	150
				3	150
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA: Description		Pre-Condition		Post-Condition	
Measure/Device Lifetime (Yrs.)		10		10	
Equipment Cost (Per/Unit)		-		\$160	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		750		713	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$160	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$40	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
9	Water Heater Wraps	3	Residential Low-Income	1	150
				2	200
				3	200
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:		Pre-Condition		Post-Condition	
Description					
Measure/Device Lifetime (Yrs.)		10		10	
Equipment Cost (Per/Unit)		-		\$15	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		250		248	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$15	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$5	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Water Heat		Residential Water Heat	
LOAD SHAPES:		Residential Water Heat		Residential Water Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLENT. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
10	Infiltration Measures	3	Residential Low-Income	1	150
				2	200
				3	200
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA: Description		Pre-Condition		Post-Condition	
Measure/Device Lifetime (Yrs.)		20		20	
Equipment Cost (Per/Unit)		-		\$200	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		N/A		N/A	
Annual Energy Consumption:					
Natural Gas (Therms)		750		675	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$200	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$50	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

WKG CARES PROGRAM DSM SCREENING AND ASSESSMENT ASSUMPTIONS

GENERAL INFORMATION					
CODE #	DSM PROGRAM TITLE	IMPLET. PERIOD (YEARS)	END USE/ CUST. TYPE	NUMBER OF TARGETED PARTICIPANTS	
				Year	Rate
11	Furnace Upgrade	3	Residential Low-Income	1	20
				2	30
				3	30
MEASURE-SPECIFIC INFORMATION					
INPUT		BASE CASE		DSM CASE	
MEASURE/DEVICE DATA:					
Description		Old Furnace		New Furnace (High Efficiency)	
Measure/Device Lifetime (Yrs.)		18		18	
Equipment Cost (Per/Unit)		-		\$200	
Annual Incremental O&M Costs		-		-	
LOAD IMPACT ASSUMPTIONS:					
Efficiency Rating		82% AFUE		90% AFUE	
Annual Energy Consumption:					
Natural Gas (Therms)		549		500	
Electricity (kWh)		-		-	
PROGRAM REBATE/INCENTIVES:					
Customer Rebate		-		\$200	
Dealer/Other Rebate		-		-	
PROGRAM DIRECT COSTS:					
Recurring Fixed Costs		-		-	
One-Time Fixed Costs		-		-	
Recurring Per Part. Costs		-		-	
One-Time Per Part. Costs		-		\$50	
RATES:		Gas Residential		Gas Residential	
AVOIDED COSTS:		Residential Space Heat		Residential Space Heat	
LOAD SHAPES:		Residential Space Heat		Residential Space Heat	

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 19
Witness: Marks

Data Request:

19. Refer to the Marks Testimony, page 8. It is stated that the TRC test measures the costs and benefits of a conservation measure from the broadest perspective as it represents the net benefit to society. Isn't it correct that the TRC calculates the net impact on a utility and its customer base as a whole, instead of as a net benefit to society? If no, provide documentation to support the contention that the focus of the TRC is the net benefit to society.

Response:

The TRC Test is interpreted as the Societal Test without externalities. In fact, we chose in the evaluation report for the Collaborative to call the TRC test the "Societal Test excluding externality adder". I regret any confusion that this may have caused.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20. a.
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:
 - a. Provide copies of the written process and impact evaluation reports. If no written report was provided, explain in detail why not.

Response:

See attachment entitled, "Process and Impact Evaluation of Western Kentucky Gas WKG CARES Program".

ATTACHMENT

D.R. 20. a.

D.R. 20. c.

D.R. 20. d.

20. e.

**Process and Impact
Evaluation of
Western Kentucky Gas
WKG CARES Program**

Prepared by

**Applied Energy Group, Inc.
Hauppauge, New York**

Prepared for

**Western Kentucky Gas Company
Demand-Side Management Program
Collaborative**

July 1998

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Appendices

Appendix A - Bill Stuffer

Appendix B - Monthly Summary Report

Appendix C - Program Manager Protocol, CAP Agency Protocol & Participant Telephone
Survey Instrument

Appendix D - PRISM Modeling Output

Appendix E - SAS Statistical Output

Appendix F - BENCOST Cost-Effectiveness Output

I. Executive Summary

This evaluation of Western Kentucky Gas' WKG CARES program examined the program from both impact and process perspectives. The process evaluation found that the program is a good example of the way in which a DSM program can be designed that capitalizes on the strengths of a number of partners in the implementation process. The program was developed as one element of a rate proceeding decided by the Kentucky Public Service Commission (PSC) in 1995 (Case No. 95-010). Central to the program are two important provisions of the agreement between WKG and the Kentucky PSC. These are, first, that the delivery of program services should be coordinated through local CAP agencies and secondly, that program oversight and guidance should be provided through a collaborative process. The resultant WKG CARES program design achieves the efficiencies and benefits accruing from piggy-back types of programs, while at the same time, maximizing the benefits that program participants could receive from both the CAP agency weatherization efforts, as well as WKG's program expenditures. The program manifests a high degree of inherent efficiency as its infrastructure is already in place via the five CAP agencies through which it operates. Recommendations stemming from the process evaluation are offered to refine an already effective program and include the following:

- *Secure permission from the Collaborative to prudently fund paid promotional efforts.* The effectiveness of a promotional strategy relying solely on free advertising time/space was limited in this program. If a small portion of the program funding surplus can be used to buy appropriate advertising coverage, the investment may not only attract further participants but will also help WKG and the Collaborative in maximizing the benefits made available from the program over its three-year planning horizon.
- *Hold more frequent status meetings with CAP agencies.* Use these as an opportunity for cross-sharing of ideas as well as a vehicle for the transmission of goal achievement reports. Throughout the course of the evaluation, it became apparent that there are certain program elements where a common understanding among the CAPs and WKG is not present. One means of improving the situation is to re-instate the periodic meetings between all parties that were present at the beginning of the program. *While not an issue during the period under evaluation,*

the loss of oil overcharge funds as of July 1, 1998, will exercise a negative impact on the CAPs and potentially the WKG CARES Program itself. Meetings such as those recommended here will foster dialogue between all interested parties that may help reduce any negative impact of the loss in funding.

- *Develop an educational supplement that can be uniformly distributed by all CAPs to all incoming participants that heightens the conservation message while clearly conveying the role played by WKG.* There is no standard "educational component" offered by all CAPS. It is worthwhile for WKG to consider either preparing materials on its own or securing ready-made booklets, brochures, etc., that it can supply to the CAPs for subsequent distribution to participants.
- *Contact the remaining CAP agencies that share a portion of WKG's territory and solicit their participation in the program.* Three additional CAP agencies serve WKG customers. They are not included in the current roster of participating agencies, nor are they understood as having a significant WKG customer population. Nonetheless, WKG should contact these agencies for the purposes of assessing its interest in joining with the other five CAPs. Since there is no incremental expense on WKG's part to add additional CAP agencies, any contribution of additional participants from the additional agencies will only stand to benefit the program.
- *Design and implement written contracts with each of the participating CAP agencies.* Written contracts do not presently capture the relationship between the agencies and WKG. For the purposes of liability protection, as well as to exactly define the responsibilities of all parties, written contracts should be set in place.

The impact evaluation of the WKG CARES program sought to estimate the energy savings (Mcf) and associated bill reductions for those Western Kentucky Gas customers participating in the WKG CARES program. As a corollary, the evaluation produced estimates of the WKG CARES program's cost-effectiveness during this period from the societal, ratepayer, utility, and participant perspectives.

Gross and net energy savings experienced by participants are presented below in Tables I.1 through I.3. Table I.1 presents the results of the change-score analysis. Mean estimates of pre and post-treatment consumption were developed using PRISM for a sample of the program participants in order to calculate a gross energy savings. The gross per-participant energy savings is then simply the difference between the pre and post-treatment consumptions (i.e, 87.8 - 70.9) or 16.9 Mcf.

Table I.1 Participant Gross Energy Savings

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	87.8
Mean Post-Treatment Normalized Annual Consumption (Mcf)	70.9
Mean Gross Per-Participant Change in NAC (Mcf)	16.9
Program Participants (n)	16.1
Program-Wide Energy Savings (Mcf)	2,721

Mean estimates of pre- and post-treatment consumption were also developed for a sample of program non-participants in order to control non-programmatic influences on consumption. These customers experienced a minimal reduction in consumption of one ccf (0.1 Mcf). This represents a 0.13% reduction. Table I.2 shows the results.

Table I.2 Non-Participant PRISM Results

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	78.8
Mean Post-Treatment Normalized Annual Consumption (Mcf)	78.7
Mean Per-Participant Change in NAC (Mcf)	0.1
% Change in Annual Consumption	0.13%
CAF (1-% Change in Annual Consumption)	0.9987

The final step in the development of net energy savings was to adjust the participant's mean pre-consumption to account for the "naturally- occurring" reduction in consumption experienced by the program non-participants. This adjustment is a relative adjustment and entails reducing the pre-treatment consumption by 0.13% (or multiplying by 0.9987, the *Control Adjustment Factor*). This adjustment yields a net energy savings of 16.8 Mcf. The total energy savings for the study population is then 2,704.8 Mcf. See Table I.3 for the results.

Table I.3 Participant Net Energy Savings

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	87.8
Control Adjustment Factor	0.9987
Mean Pre-Treatment Energy Consumption (Mcf) Adjusted for Control Adjustment Factor (CAF)	87.7
Mean Post-Treatment Normalized Annual Consumption (Mcf)	70.9
Mean Net Per-Participant Change in NAC (Mcf)	16.8
Program Participants (n)	161
Program-Wide Energy Savings	2,705

Tables I.4 and I.5 present the results of the benefit-cost analysis which employed the BENCOST benefit-cost software. Note that AEG performed the benefit-cost analysis with and without an environmental externality adder (which accounts for environmental benefits associated with reduced natural gas consumption).

Table I.4 Benefit-Cost Results (Excluding Environmental Adder)

Societal Test	1.12
Ratepayer Impact Measure	0.65
Utility Test	0.66
Participant Test	681.35

Table I.5 Benefit-Cost Results (Including Environmental Adder)

Societal Test	1.17
Ratepayer Impact Measure	0.65
Utility Test	0.66
Participant Test	681.35

The results of the impact evaluation suggest the following conclusions:

- Substantial energy savings are associated with participation in the WKG CARES program.
- The net per-participant energy savings has been estimated as 16.8 Mcf for those WKG customers who participated in the program between November 1996 and September 1997 which represents approximately a 19% reduction in energy consumption.
- The annual bill reduction associated with this energy savings is \$82 or 16.7% of the average participant's annual natural gas bill.
- Based on the energy savings estimates, the societal benefit-cost ratio is 1.12 (without an environmental adder) and 1.17 (with an environmental adder) demonstrating the program's cost-effectiveness.

Based on these findings and conclusions from the impact evaluation, the following recommendations are offered:

- *The WKG CARES program should continue as is with no modifications in delivery or measure specification suggested by the level of the achieved program impacts.*
- *WKG should consider performing an evaluation of year-one participants following year-three to if such savings degradation has occurred.*

II. Overview

This report represents the results of Applied Energy Group, Inc.'s (AEG) process and impact evaluations of Western Kentucky Gas' WKG CARES Program. This demand side management/low income customer assistance program commenced on November 1, 1996, and will continue in operation for at least three years.

A. Objectives

The objectives of the process evaluation include the following:

- ▶ To provide and capture an institutional memory of the program, its operation, and its results
- ▶ To provide recommendations, as appropriate and where required, concerning program delivery, promotion, and communications
- ▶ To identify ways, if any, to improve the efficiency of the program design and implementation process
- ▶ To determine the adequacy of program staffing, both internal and secondarily through Community Assistance Program agencies (CAPs), program resources, and quality control
- ▶ To examine and comment upon the working relationships between all parties involved in designing and implementing the program
- ▶ To explore and critique the piggy-back relationship and value-added benefits provided by WKG CARES to the Department of Energy and State-funded services provided by CAP agencies

The objectives of the impact evaluation include the following:

- ▶ To estimate the energy savings (Mcf) attributable to the WKG CARES Program
- ▶ To develop estimates of the WKG CARES Program's cost-effectiveness from the societal, ratepayer, utility, and participant perspectives
- ▶ To develop an estimate of annual bill savings accruing to program participants

B. Methodology

1. Process Evaluation

Process evaluations rely on both quantitative and qualitative data to provide a clear picture of program implementation and performance from a number of perspectives. Each research design requires careful consideration to determine which methods are most appropriate to the accomplishment of evaluation objectives. In the case of WKG CARES, AEG's evaluation focused on program sponsors, implementors, and recipients through a variety of research tools including:

- ▶ Interviews with program management
- ▶ Interview with the Executive Director of the Kentucky Association for Community Action
- ▶ Interviews with Community Assistance Program Agency directors
- ▶ Surveys of program participants
- ▶ Analysis of program data bases and reporting formats
- ▶ Reviews of relevant program documentation

Initial and follow-up interviews were conducted during April and May 1998. The surveys of program participants took place during May 1998. (See Appendix C for the protocols and the participant telephone survey instrument.)

2. Impact Evaluation

To determine and analyze the quantitative results of the program, i.e., its impacts, AEG conducted a statistical billing analysis to estimate the gross and net energy Mcf savings associated with participation in the WKG CARES Program. AEG used the Princeton Scorekeeping Method (PRISM) to develop estimates of pre- and post-treatment normalized annual consumption values for a sample of program participants and non-participants. The resulting gross and net savings estimates were then projected to the program population. In addition these energy savings estimates were used to develop estimated bill reductions for program participants. The net energy savings values were also integrated into a benefit-cost model¹ to provide benefit-cost ratios from the societal, ratepayer, utility, and participant perspectives.

C. Report Organization

Chapter III of this report presents a profile of the WKG CARES Program, incorporating the impetus for establishment of the program, a discussion of its configuration and design, a description of delivery mechanisms, and the importance of the role played by the CAP agencies. The findings yielded by the process evaluation are developed throughout this discussion of the program's design and operation.

Chapter IV contains the reaction of participants to the program in the form of survey results, analysis, and tabulation.

Chapter V presents the results of the impact evaluation.

Chapter VI presents the conclusions drawn from both the process and impact evaluations and offers recommendations to improve the functionality and effectiveness of the program.

¹ AEG utilized a benefit-cost model (BENCOST) which was developed by the Minnesota Department of Public Service specifically for gas utility DSM programs. AEG is familiar with this model through work we have done for three different Minnesota gas utilities.

III. WKG CARES Program Process Overview and Findings

This chapter presents an overview of the WKG CARES Program as well as key findings from the process evaluation.

A. Program Description

The WKG CARES Program was initiated as a pilot Demand Side Management/Low Income Customer Assistance Program. The program is directed at low income customers who, for the most part, own their own homes. The program focuses on the delivery of weatherization measures to the homes of qualifying low-income residents and the reduction of their gas utility bill. The program was developed as one element of a rate proceeding decided by the Kentucky Public Service Commission (PSC) in 1995 (Case No. 95-010). Central to the program are two important provisions of the agreement between WKG and the Kentucky PSC. These are, first, that the delivery of program services should be coordinated through local CAP agencies and secondly, that program oversight and guidance should be provided through a collaborative process.

“To enhance the success of the program, Western agrees to work with a collaborative work group made up an internal team and representatives of Kentucky Legal Services, Inc., the Attorney General’s office and community action agencies having expertise at working with low income customers’ utility problems. The Commission shall be invited to participate also, at its discretion. The purpose of the Collaborative will be to establish a practical, detailed plan for implementing the DSM program. Unless otherwise agreed to by Western, all programs will be designed to qualify for full or partial recovery pursuant to KRS 278.285.....Western agrees to work with the Kentucky Association for Community Action and the local Community Action agencies in its service area to help administer the program.”²

² Kentucky Public Service Commission Case 95-010 Decision, p.6.

A total of 300 low-income residences were targeted initially for treatment during each year of the three-year program. The letter of stipulation and agreement called for a maximum of \$1,500 to be expended per treated residence³, with a total program cost not to exceed \$450,000 per year. WKG agreed to commit to fund the pilot program for three years regardless of the cost recovery effectiveness, although all program elements were to be designed to qualify for full recovery.

The first year of the program spanned the period November 1, 1996, through October 31, 1997. For the purposes of this process evaluation however, the period from November 1, 1996, through January 31, 1998 will be addressed.

Program management, as it is customarily understood in DSM programs, is the responsibility of WKG. It is the responsibility of the WKG Program Manager to coordinate the day-to-day functioning of the program. The Collaborative (The Western Kentucky Gas Company Demand-Side Management Program Collaborative) mentioned above was formed to provide additional oversight in the design and implementation of the program and to ensure that the interests of all participants to the process were most effectively and most equitably served. Major policy decisions regarding the program are the responsibility of the Collaborative. The group comprising the Collaborative, as envisioned in the rate case, was to include representation from an internal team from WKG, as well as representation from Kentucky Legal Services, Inc., the Attorney General's office, and either the Community Action agencies themselves or someone representing them. The Commission declined the opportunity to participate. Additionally, a representative was not available from Kentucky Legal Services, Inc. As a result, a representative from Cumberland Trace Legal Services (a regional legal service) was included in the Collaborative. At the time of this evaluation, a total of four representatives (one from each of the above mentioned organizations) comprise the Collaborative.

³ As is further discussed later in this evaluation WKG subsequently modified this ceiling to an average of \$1,500 per home, with a maximum of \$2,000, provided that the *average* expense of all treated residences did not exceed \$1,500.

B. Program Design and the Role of CAP Agencies

WKG CARES is a piggy-back type of DSM program as it overlays benefits or program measures supplied by the utility on top of benefits made available through other programs, such as those provided by CAP agencies. WKG CARES is similar to programs in other states that are directed at improving the comfort level, safety, and energy efficiency of residences owned (or in some cases, merely occupied) by low-income families through utility-funded programs.⁴

There are a total of 26 CAP agencies in Kentucky. WKG works in this program with five agencies in this group that cover approximately 90% of its service territory. The five participating agencies serve contiguous areas within WKG's territory. The Executive Director of the Kentucky Association for Community Action reported that there are three CAP agencies that could participate in the program that are not already involved. However, it is not known whether these agencies reflect geographic areas containing large eligible populations that could benefit from the program.

Finding: However, it is possible that these remaining agencies could provide at least some additional participants to the program. Additionally, their inclusion would make program benefits available to all eligible WKG residential customers.

Simply stated, WKG supplies funding to CAP agencies to augment CAP expenditures for weatherization services. WKG does not install measures with its own staff, nor does it employ sub-contractors independent of the CAPs. CAP agencies receive their normal funding generally from federal and state grant programs and provide a variety of services, one of which is weatherization. Examples of other services provided by CAP agencies would be the qualification of potential recipients of Home Energy Assistance Program (HEAP) benefits that are made available annually to low-income households through this federal block-grant program, Meals on Wheels, aid to seniors, etc.

⁴ An example of such a program is New York State's Utility Low-Income Energy Assistance Program (ULIEEP) which was established through a cooperative rather than a collaborative process, and was approved by the NYS PSC in June 1992. Another example can be found in Minnesota, where most of the gas utilities have piggy-back type weatherization programs with CAP agencies located in their service territories.

The selection of weatherization measures specifically authorized and funded by WKG is the result of a joint analysis by WKG and the Collaborative, including the five agencies that presently participate in the program. A series of measures were proposed by the group for consideration. These potential program offerings were subjected to a series of standard cost benefit tests to weigh their net costs and benefits from a number of different perspectives. The ultimate choice of measures was based on a cost sharing arrangement between the CAP agencies and WKG. This scenario enabled the installation of the widest range of measures, with each measure passing the Total Resource Cost Test. This test measures the costs and benefits of a conservation measure from the broadest perspective in that it represents the net benefits to society, including both participants and non-participants.⁵ Table III.1, which follows, presents the measures currently being installed by the CAPS that are either fully funded by WKG or are funded on a shared-cost basis.

Table III.1

Efficiency Measures Implemented at WKG Expense or on a Shared-Cost Basis in the WKG CARES Program
Attic insulation
Wall insulation
Floor insulation
Infiltration reduction
Water heater replacements/repairs
Duct insulation
Repair/replace furnace
Clean/repair furnace
Duct repair

⁵ See Standard Practice Manual: Economic Analysis of Demand-Side Management Programs, developed by the California PUC and the California Energy Commission.

C. Program Delivery by the CAP Agencies

The CAP agencies treat low-income homes to improve the home's "envelope integrity" by replacing or repairing specific equipment and structural components. The first step in the delivery process is the qualification of the customer for admission to the program. There are very stringent income qualifications for the program. In summary, in order for a residential customer to qualify, total household income cannot exceed 125% of the federal poverty level. Eligibility is determined by the CAP agencies. WKG plays no role in this process.

Only single family homes and mobile homes are eligible for the WKG funds. As reported by one of the CAP agencies, the State weatherization guidelines allow a maximum of between 10% and 15% of the eligible homes to be rentals (the application is filled out by the current tenant). The WKG CARES Program adopted and is governed by this guideline since it piggy-backs on the weatherization program. However, if a rental home is weatherized, it must adhere to certain specifications:

- The landlord is required to pay 75% of the cost of heating system improvements
- The landlord must sign a contract stating that he/she will not raise the rent or sell the home to make a profit on the weatherization improvements
- If the landlord is eligible based on his/her income, the home can be weatherized under the program without any stipulations

The program process begins with the "intake" at the local CAP offices within each county. Potential program participants (most commonly comprised of people walking into the local offices and asking for assistance in paying their energy bills or requesting weatherization services) are required to fill out applications. The information required includes the following:

- Name, address, telephone number
- Number of occupants living in the home
- Income level and source of income

Customers are required to supply documentation to substantiate the income level they claim. The level of funding available is calculated according to the federal standards using a point system.

The point system is based on the following factors: the total family members, the number of handicapped and elderly family members, income level, primary fuel type, and the percent of the fuel cost as a factor of total yearly income. The sum of the point values assigned to each of these scoring attributes is the basis for a residential dwelling being selected for weatherization. Because of limited funds availability, households with the highest point total are selected for weatherization measure installation. Customers who are handicapped and/or elderly receive additional points which gives them priority. The following table illustrates the point system process as reported by one of the CAP Agencies.

Table III.2

THE POINT SYSTEM -		
1.	<i>Total family members</i>	
-	Each family member	1 point
-	Each family member who is elderly	5 points
-	Each family member who is handicapped	5 points
-	If a family member is both elderly & handicapped	10 points
2.	<i>Income level</i>	
-	120-125% of federal income poverty guidelines	1 point
-	75-99% of federal income poverty guidelines	2 points
-	Less than 75% of federal income poverty guidelines	3 points
3.	<i>Primary fuel</i>	
-	If primary fuel is electricity	8 points
-	If primary fuel is propane	6 points
-	If primary fuel is fuel oil	4 points
-	If primary fuel is wood	4 points
-	If primary fuel is natural gas	3 points
-	If primary fuel is coal	2 points
4.	<i>The percentage of total income used to pay fuel bill</i>	
-	If 0-6% of fuel cost is from total yearly income	2 points
-	If 7-13% of fuel cost is from total yearly income	4 points
-	If 14-20% of fuel cost is from total yearly income	6 points
-	If 21-27% of fuel cost is from total yearly income	8 points
-	If 28-33% of fuel cost is from total yearly income	10 points
-	If 34% or more of fuel cost is from total yearly income	15 points

Four of the five CAPs reported that during the intake process, WKG customers are informed of the additional funding available through the WKG CARES Program. One CAP stated that it did not have a standardized policy of informing the potential participants that partial funding and expanded benefits were provided by WKG CARES. Although the CAPs claim that they inform potential participants of WKG's role, only 29% of customers surveyed as part of this evaluation indicated an awareness of WKG's contribution. (See Chapter IV, Table IV.3.)

Finding: Regardless of the reason for this general lack of awareness, and while the gaining of recognition for program funding is not a significant motivation for WKG's participation, the Company nonetheless has the right to have program participants educated as to WKG's role and the additional weatherization services made possible as a result of WKG funding.

Once eligibility is determined, a pre-inspector from the CAP Agency is sent to the home to do a pre-inspection. As part of the process, a blower door test is performed to determine the level of air leaks and infiltration within the home. Additionally, each home is required to have a State-required National Energy Audit (NEAT) performed using a standardized State-supplied audit form. This audit determines the savings investment ratio, energy savings in dollars per year, and the total energy savings. All information gathered during the pre-inspection is entered by the CAP agency into its own database. The NEAT Audit information is entered into a NEAT software program (provided by the State Weatherization Dept.), and the output from this software determines the most cost-effective measures for that particular home. Based on this information, the CAPs will select the mix of energy efficient measures they can install with the funds they have available through the weatherization program. If the CAP client is a Western Kentucky Gas customer, then the CAPs are authorized by WKG to install additional approved weatherization improvements to the home through the WKG CARES Program. If gas leaks are found during the pre-inspection, they are fixed immediately.

Four of the five CAPS have internal installers who do the actual installations. One of the CAPs bids the work out to sub-contractors. Once the CAP determines the measures that will be installed, the materials are ordered and secured. The individual CAPs reported that the installer or installation team is sent out to do the work within a "few months" of the pre-inspection date. This apparent delay is the result of work load as was reported by the agencies. Once the work is completed, a post-inspection is performed by the CAP within 4 months (depending on the CAP agency, the post-inspection could take place as early as 1 week after installation) to verify that the measures were installed properly. At this time, the post-inspectors answer any questions or concerns the customer may have. All CAPs reported that they give additional education at this time.

WKG imposes its own quality control on the steps taken by CAPs. They inspect at least 10% of all homes that have been weatherized using WKG CARES funds. During the program evaluation period in which this report is based, the Program Manager stated that WKG had found only one home which WKG had post-inspected, in which the CAP agency's installer was required to return and do additional work. (The installer had not placed a safety mat under the furnace which was required by Federal Code Standards.) Additionally, the State audits a random selection of treated homes each year. The federal government also performs audits on a random basis.

Finding: Based on interviews of CAP management, it is apparent that the agencies are very cooperative with WKG and appreciative of WKG's injection of added weatherization funding. The agencies are positive in the attitude toward their clients and display a pattern of concern and interest in their dealings with payment troubled or otherwise disadvantaged low-income residents.

D. Program Objectives and Goals

The program was designed as a three-year pilot program as mentioned previously. The original program goal was to fund a maximum of 300 low income homes per year (25 per month) with a target maximum of \$1,500 per household, not to exceed a total program cost of \$450,000 per year. In an effort to provide the CAPs with additional flexibility in spending the available WKG funds, WKG modified the program at the end of approximately 12 months of operation from a *maximum* funding limit of \$1,500 per home to an *average* funding of \$1,500 per home, with a *maximum* of \$2,000 per home. This design change afforded the CAPs the ability to do more inclusive weatherization installations in homes as needed.

The participating CAP agencies are required to use the WKG CARES Program funding for all WKG customers who are eligible for federal weatherization funding under the poverty guidelines.

Goals were originally communicated by kick-off meetings with the weatherization program directors. This was followed by written documents defining the measures that would be acceptable for the program. It appears that the only goal communicated called for an annual combined total of 300 homes to be weatherized by all agencies.

According to the Program Manager, formal written contracts were never established. Instead, during the initial meeting with the CAPs, WKG explained the program in detail, which included budget amounts per eligible home. The CAPs were very receptive to this concept and immediately began using the program.

While establishment of the original program goals was very specific, no individual agency goals were established. This was because it was difficult to predict goal attainment potential without in-depth study of each CAP's service area demographics and the condition of housing stock within the area.

Finding: However, while no individual agency goals were established, each CAP agency was instructed, as the program commenced, to treat as many homes as was possible. Thus, while there were no specific agency targets, there was the mandate to extend program benefits to as many homes as was possible.

E. Program Results

In its first 15 months of operation, the program has resulted in the weatherization of a large number of residential dwellings. However, the originally intended goals have not been achieved. Table III.3, which follows, presents the agencies and the number of homes each has weatherized during the evaluation period with WKG CARES funding and participation.

Table III.3

Community Action Program Agency	Number of Homes Weatherized*
Audubon Area Community Services	46
Bluegrass Community Action Agency	8
Community Action of Southern Kentucky	57
Pennyrile Allied Community Action Agency	74
West Kentucky Allied Community Action Agency	45
Total	230

**Homes weatherized from November 1, 1996 through January 31, 1998.*

Prorating the original goal of 300 homes per year results in a target of 375 homes for the period being evaluated. Thus, the actual number of homes treated equates to 62% of the goal. Likewise, prorated program expenditure targets for the period total \$562,500. Actual expenditures were \$ 358,291 representing 64% of the goal. Recognizing that the first four months of the program were considered the "start-up" period, a more reasonable goal would be a monthly average of homes weatherized beginning in month 5 (March 1997) and continuing through month 17 (February 1998) of the program. This monthly average of 17 homes falls 8 homes short of the 25 homes per month goal (300 homes per year) mentioned above.

F. Program Promotion

1. Program Promotion by WKG

The principal form of promotion offered by WKG is comprised of press releases that are prepared and disseminated to the public broadcast media and Public Service Broadcasting stations. WKG also provides print announcements to all newspaper media. (See Appendix A for a sample of the newspaper ad.) Bill stuffers are used once each year to promote the WKG CARES Program. None of the WKG CARES funding is used to pay for program promotion. This decision to forego paid advertising was made by the Collaborative.

Finding: This lack of WKG funded paid advertising may be one factor in the inability of the program to achieve its first-year participation goal.

During the course of this evaluation, it was reported that because of competition for free advertising announcements or notices, there was little if any guarantee that WKG CARES promotional materials would ever be aired or printed. This finding is supported by the fact that only one customer who was surveyed (2.2%) reported learning of the program through a newspaper ad. (See Chapter IV, Table IV.4.) The results of this evaluation indicate that the principal form of promotion for this program is a combination of recognition of need by the CAPs and simple word-of-mouth.

Finding: One other potential source of referrals to the program are WKG customer account representatives who interface with customers in-person and by telephone.

These account representatives represent an excellent referral/recognition source and provided with a brief, easy-to-understand program fact sheet, could be a valuable asset to the program.

Based on the responses of customers who were asked how they had first learned of the program, this avenue for the WKG CARES program promotion is not being capitalized upon.

2. Program Promotion by CAP Agencies

The CAP agencies use a variety of methods to promote weatherization. While not promotion in the strict sense of the word, the most common means of introducing customers to WKG CARES occurs in the CAP offices during the application process where WKG customers should be informed that, if they are eligible for the weatherization assistance, they are also eligible for the WKG CARES Program.

Since the CAP agencies provide a wide range of services to their communities in addition to the weatherization program, there are numerous internal need recognition and referral mechanisms. For example, if a customer comes into the agency for help in paying their utility bill and the agency feels their bills appear too high, they will be referred to the weatherization section of the agency. CAP agencies have placed ads in local newspapers, on the radio, and placed flyers at local food stamp offices promoting weatherization services. One CAP sponsored an "Open House" at its offices. Another CAP publishes a newsletter, "Senior Star", which has included an article about the WKG CARES Program. Additionally, the low-income community has learned about the WKG CARES Program through word-of-mouth promotion.

3. Education Component

Finding: It was reported by the agencies that education is provided at various stages of the program process although there is no standardized education component, nor are brochures describing WKG's role in the program or its recommendations for energy-use reduction given to customers.

When customers come into the Agency to fill out applications, the Agency generally provided suggestions on how to save energy and lower energy bills. For example, clients might be asked if they keep windows open in cool weather because it is too hot in the home. If they give an affirmative reply, the client is then informed that if they lowered the thermostat setting the home wouldn't be as warm and windows could remain closed, thus conserving energy.

During the initial inspection of the home, the pre-inspectors explain what they are doing during the audits (NEAT) so customers can understand the reasons for the audit, together with its results. During the course of the weatherization, the installers will explain how the equipment/measures work and how to maintain the various measures that have been installed. As an example, if a new heating system is installed, the installer will explain and/or demonstrate how to change the filters and how to set the thermostat temperature as part of a periodical maintenance program. When the post-inspection is performed, the inspector will again explain how to use each piece of equipment, where appropriate. Most of the CAPs will provide phone numbers and contact names for the customer to use if they have questions relating to the weatherization measures or equipment that were just installed.

G. Data Tracking and Reporting

1. Tracking

Each CAP Agency is responsible for collecting and tracking specific information for each qualifying customer who takes advantage of weatherization/WKG CARES services. The forms used by the CAPs are provided by the Kentucky State Cabinet for Human Resources - Department for Social Services for the Weatherization Assistance Program, and include the following:

Forms Required by the Federal Government:

- ▶ WX800 "The Application & Prioritization for Weatherization Services"
- ▶ WX900 "The Work Order"

Forms Required by the State:

- ▶ WX710 Completed Dwelling Report

As was the case with the previously mentioned blower door test results, the information on these forms is entered into databases established by the individual CAP agencies. Each month, the CAP agencies are required to send the WKG Program Manager a hard copy of the above forms for each home (weatherization measures installed) completed within the month that utilized WKG CARES funding. Additionally, each CAP sends an invoice for

the past month, which includes a summary of the number of homes that have completed weatherization in the past month and the WKG portion of the costs.

These tracking forms are standardized Weatherization Program forms which contain detailed information concerning each customer. Because of the WKG CARES Program's piggy-back nature, the information that these forms provide represents all the relevant and necessary information required by the WKG CARES Program. There are no additional tracking formats required solely to meet the requirements of WKG CARES. The WKG Program Manager decided that WKG would be able to work with the forms that the CAPs were already required to use as part of the weatherization program. The program manager simply asked the CAPs to include with these forms one additional page detailing the actual WKG funding used, by qualifying measure, for each home which had been weatherized. The program manager felt that the CAPs should not be burdened with additional paperwork.

Finding: WKG and the Program Manager have attempted wherever possible to minimize program administrative expenses so that the maximum possible amount of program funding can flow to actual weatherization measures.

2. Program Performance Reporting by WKG

On a monthly basis, the WKG Program Manager compiles a report summarizing the current status and accomplishments of the program. The report contains the following information:

- The reporting month
- The name of each participating CAP Agency
- The current program year fund status
- The average cost per home weatherized
- The number of homes weatherized to date
- The number of completed WKG post-inspection audits for the program year

This report is provided to each member of the Collaborative, WKG Senior management, and to each of the participating CAPs, thus providing updated information to all of the interested parties. A copy of this report is included in Appendix B.

H. Program Communication Issues

All CAP agencies reported generally good communications with WKG. At the inception of the program, the Program Manager arranged to conduct the WKG CARES Program meetings in conjunction with the ongoing CAP quarterly meetings (which were established a number of years ago for the purpose of discussing DSM weatherization projects). After the CAP meeting was adjourned, the Program Manager would meet separately with the Weatherization Program Directors of the WKG participating CAPs. These meetings addressed specific issues and questions related to the WKG CARES Program and its operation. One of the principle reasons for these meetings was to ensure that the CAP agencies were reporting information in a uniform manner.

After the first complete program year, the Program Manager has reduced the frequency of status and update meetings due to the fact that the CAPs are now familiar with the WKG CARES Program and have generated a limited number of questions or concerns in recent months.

Finding: It was reported by some agencies that they would appreciate more frequent meetings if for no other reason than to provide a forum for sharing common experiences.

Although not in the setting of a formal meeting, the CAP Weatherization Program Directors reported that they communicate by telephone with the Program Manager, on average, once a month.

Finding: WKG offers an "open door" policy in which the CAP Directors can always call and have their questions and concerns addressed and answered. The agencies were quite supportive of the WKG Program Manager and were particularly appreciative of his availability and quick turnaround in providing needed information.

While not an event that occurred during the course of this evaluation, it was reported that oil overcharge funds, which have been provided to CAP agencies, are eliminated, effective July 1, 1998. This will stress the resources of the CAPs to treat as many homes as was done in the past, both with and without WKG CARES Program support. More frequent meetings/contacts with the CAPs will foster dialogue between all interested parties that may help reduce any negative impact of the loss in funding.

I. Barriers to Program Participation

Finding: Low income residents can be prevented from participating in weatherization/WKG CARES for a number of reasons.

One such reason results from a lack of promotion reaching the targeted population. A number of potential customers may be unaware of the weatherization program and the WKG CARES Program simply because information concerning the availability of the program does not reach them. This is not a criticism of CAP efforts, but rather is a recognition that promotional expense allocations are limited in the case of the CAPs and non-existent in the case of WKG.

A second barrier to participation stems from the fact that there are strict limits to the number of rental dwellings allowed to be weatherized each year with program supplied funding. The number of rental homes that can be weatherized each year is limited to between 10% and 15% of the total number of homes treated. As a result, a number of low-income families cannot avail themselves of program benefits. Note that there is a lack of consistent interpretation/understanding of this limitation among the participating CAP agencies. Some CAP agencies believe the maximum saturation of rental homes can be 10% while others believe it to be 15%. Regardless of the correct proportion, it was reported that the State allows exceptions to the rule and is willing to "work with the CAPs" on this point when needed.

A third barrier arises when the customer does not meet the technical criteria for income eligibility and thus, is prevented from participating in the program even though he/she may effectively still be poor. Agencies reported that there is strict adherence to Federal income standards, with no exceptions, in the certification process.

Roof repair is a forth barrier to participation. As reported by one of the CAP Weatherization Directors, according to the Federal regulations, if as part of the weatherization treatment roof repair is required, the CAP must also install attic insulation, wall insulation, floor insulation and general heat waste prevention measures, *through its own funding allotment for the residence*. Since the CAP has limited funds and the roof repairs are generally quite costly (upwards of \$2,000 on average, as reported by the CAPs), a number of homes cannot be treated as the funds remaining after the roof repairs will not cover the cost of the other required measures. (See Section "J" for a further discussion of this issue.)

J. CAP Agency Reactions to the WKG CARES Program

Finding: The WKG CARES Program owes its success to the efforts of the CAP agencies.

As such, the reactions of these individual organizations to the program and their suggestions for how it might be improved are valuable for program planning in the future. As mentioned previously, each of the five participating agencies was contacted and interviewed, some on multiple occasions.

Finding: There is a clear understanding among the agencies of the purpose of WKG CARES and the role it plays in helping low-income families reduce their gas utility bills. Without exception, the reaction of the CAPs to the program and to WKG is highly positive.

Clearly the program is seen as a means of improving the comfort level of participants and the level of safety within their homes through the ability of the agencies to provide additional measures paid for by WKG CARES. Interestingly, one agency indicated that a very visible result of the program was its ability to buy and install completely new outside gas heating units in a number of cases, a situation that would not have been possible without WKG funding.

Direct WKG CARES Program promotion by the agencies is somewhat informal. In other words, it is comprised of flyers at food stamp offices, open houses, newsletters, and some level of radio and newspaper advertising. The use of radio and newspapers is limited because of the associated expense. As is borne out by the comments of participants, the WKG CARES program promotion by the agencies, other than word-of-mouth, appears to be somewhat ineffective. Present WKG CARES Program promotional activities are a deficiency in the program that, if restructured, may be a motivator for additional participation.

The CAPs operate and provide weatherization under a group of state and federal regulations. While securing modifications to these regulations may be quite difficult, if not impossible, the regulations concerning homes with roof leaks is particularly troublesome to the CAPs. The requirement to install a series of potentially very costly insulation measures coincident with roof repairs effectively prevents the CAPs from treating a number of homes in the low-income housing stock. Further, the limitation cannot include piggy-back funding from WKG CARES. Repair of roof leaks does not meet the cost/benefit requirements of WKG CARES. A few months into the program, a recommendation was made from the program manager to the Collaborate requesting that WKG CARES money be allowed for roof repairs. The recommendation suggested that WKG pay for the roof repairs and then take the credit for any energy savings that resulted from whatever weatherization was done to the home with DOE funds, since nothing could have occurred without first repairing the roof. The Collaborate declined approval on this recommendation.

Finding: The net result of this situation is that the CAP agencies are precluded from treating a number of homes that otherwise could have been treated if their funding could be expended on roof repairs while WKG CARES funding could be dedicated to the follow-on insulation and associated inside improvements that are cost/benefit justified.

Again, the issue may not have a solution, but appeals by the CAPs to the State and/or the Federal government may result in a waiver if only for the time period during which WKG CARES is in effect.

As was discussed elsewhere, while the monthly program status reports received from the WKG Program Manager are useful to the agencies, three of the five agencies suggested that the quarterly meetings with the Program Manager, that took place in the early months of the program, be reinstated.

IV. Customer Reaction to the Program - Telephone Survey Results and Analysis

A. Description of the Data-Collection Process

For the purpose of this report, 230 homes were weatherized during the program evaluation period. A telephone survey was conducted using a sample of 50 of the 230 WKG CARES participants (50 homes) to determine their perceptions of the program, satisfaction with the program and the measures installed, whether or not they were aware WKG supplied the CAPs with partial funding for each of the homes, and to gather general demographics.

All program data used for the process evaluation was taken directly from the information collected from the client applications and inspection forms prepared by the CAP agencies for the program. The sample of 50 participants includes homes weatherized from program inception (October 1996) through January 31, 1998.

B. Sample Design and Confidence Levels

1. Sample Design

In order to ensure non-bias survey results, a sample of 50 program participants was selected from the 230 completed projects. This sample was stratified by CAP agency. Table IV.1 presents the weatherization project populations and the number of telephone surveys completed within each stratum.

Figure 1

Sample Size and Error calculations for Proportions
 1998
 Western Kentucky Gas
 WKG CARES
 All CAP Agencies

Population	230 Participant Survey
Sample Size	50 Survey Sample
Estimate of Customer Satisfaction from Survey	0.800
std dev	0.4000
std error	0.0566
finite pop correction	0.884652
adjusted std error	0.0500
confidence band	90
# of std errs	1.645
Margin of Error in Proportion +/- <u>8.2%</u>	

Error Band	0.800 +/- 0.082
Lower Bound	0.718
Upper Bound	0.882

MARGIN OF ERROR FOR PROPORTIONS

Western Kentucky Gas

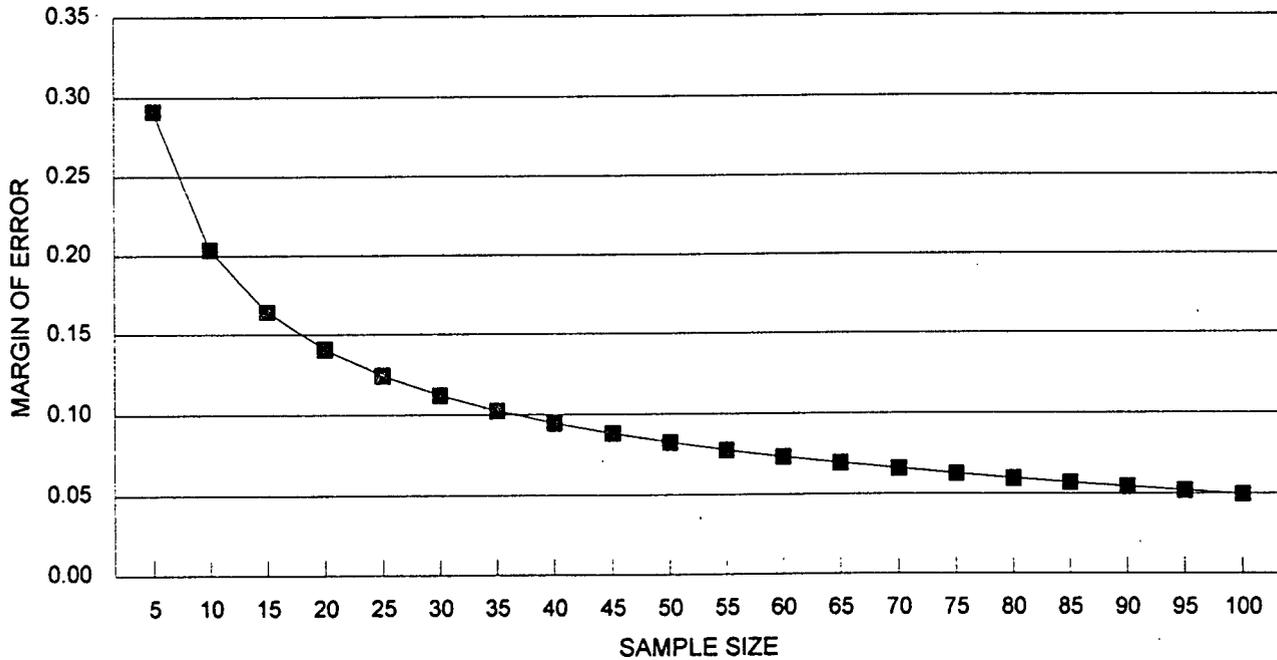


Figure 2

Sample Size and Error calculations for Proportions
 1998
 Western Kentucky Gas
 WKG CARES
 All CAP Agencies

Population	230 <i>Participant Survey</i>
Sample Size	50 <i>Survey Sample</i>
Actual Results of Customer Satisfaction from Survey	0.880
std dev	0.3250
std error	0.0460
finite pop correction	0.884652
adjusted std error	0.0407
confidence band	90
# of std errs	1.645
Margin of Error in Proportion +/- <u>6.7%</u>	

Error Band	0.880 +/- 0.067
Lower Bound	0.813
Upper Bound	0.947

MARGIN OF ERROR FOR PROPORTIONS

Western Kentucky Gas

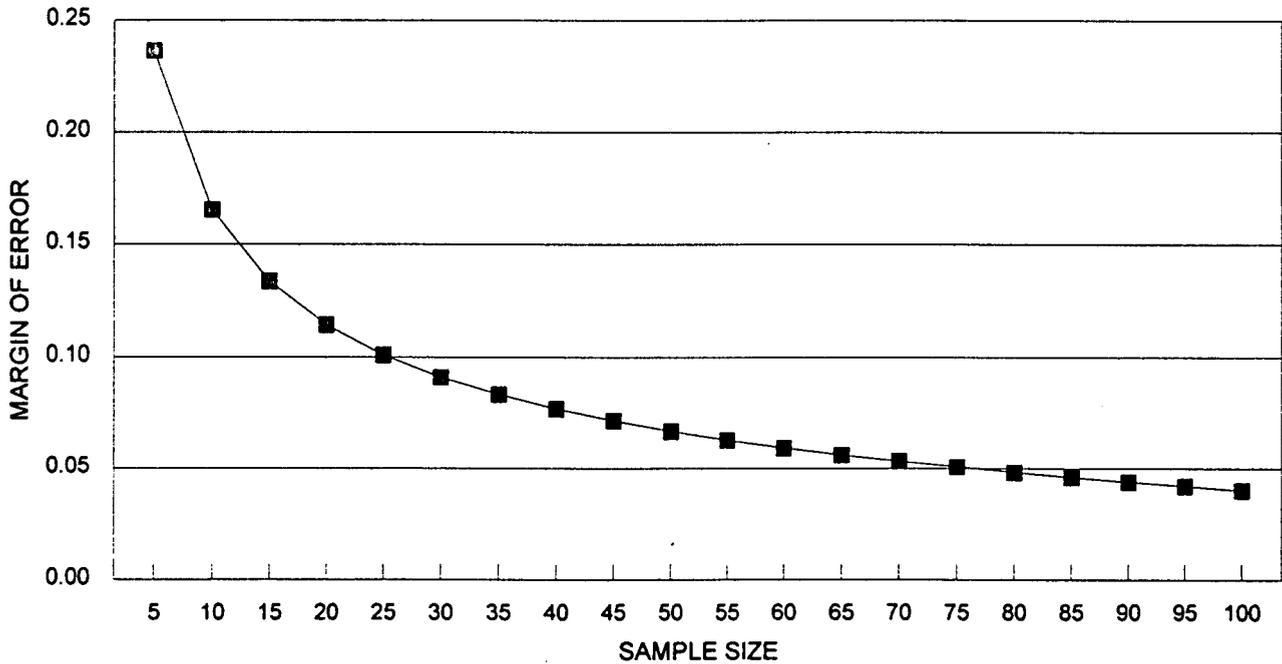


Table IV.1

CAP Agency	Number of Homes Weatherized	Number of Completed Home Surveys
Audubon Area Community Services	46	11
Bluegrass Community Action Agency	8	5
Community Action of Southern Kentucky	57	11
Pennyrile Allied Community Action Agency	74	12
West Kentucky Allied Community Action Agency	45	11
Total	230	50

2. Confidence Levels

Figure 1, on the following page, illustrates the basis for the sample design, showing that out of a population of 230 participants, a survey sample of 50 participants would produce an *estimated* customer satisfaction level of 80% with a margin of error in proportion of +/- 8.2 percentage points.

Figure 2, shows that of the 230 participants, the survey sample of 50 participants, based on the *actual* response rate to the question, produced an overall satisfaction of 88% with a margin of error in proportion of +/- 6.7 percentage points. Overall satisfaction is defined for this illustration as respondents who indicated either "1" (extremely satisfied) or "2" (very satisfied) when asked their opinion on their overall satisfaction of WKG as their service provider.

Table IV.2 details the individual CAP agency margins of error based on a positive response to overall satisfaction of WKG as the customer's service provider.

Table IV.2

Cap Agency	Total Number of Responses	Positive Satisfaction Level	Margin of Error
Audubon Area Community Services	11	100%	0%
Bluegrass Community Action Agency	5	100%	0%
Community Action of Southern Kentucky	11	91%	12.8%
Pennyrile Allied Community Action Agency	12	75%	18.8%
West Kentucky Allied Community Action Agency	11	82%	16.6%
OVERALL	50	88%	6.7%

A statistical comparison between the lowest satisfaction level CAP agency and the overall satisfaction level showed no significant difference in response. Therefore, the survey concludes that the CAP Agency was not a determining factor of overall satisfaction.

Finding: It was also determined that the customers' overall satisfaction with WKG as their energy provider was not effected by whether customers knew WKG had paid for some of the energy savings measures.

Fourteen customers (out of the 50 customers surveyed) knew that WKG had partially paid for the measures that were installed. Of these, 86% of the customers (12 of the 14), indicated that they were "extremely satisfied" or "very satisfied" with WKG as their energy provider. Thirty-four of the 50 customers surveyed indicated that they did not know WKG partially paid for the measures that were installed. Of these, 88% were "extremely satisfied" or "very satisfied" with WKG as their energy provider. The two remaining customers indicated "don't know" as to whether they knew if WKG had paid for some or all of the measures installed.

C. Survey Tabulations and Findings

All 50 participants surveyed were confirmed to be Western Kentucky Gas customers and recalled having energy savings measures installed in their homes within approximately the past year, free of charge.

- The first issue explored concerned the understanding or awareness that program participants had of WKG's role in the program. Participants were asked whether they were aware that WKG had paid for some of the energy savings measures installed in the home. Although, as reported earlier, four of the five CAP agencies indicated that they informed potential participants of WKG's role during the qualification process, less than one-third of participants were aware or could recall WKG's part in the weatherization effort.

Table IV.3

Awareness of WKG's Role	Number of Responses ⁸
Yes	14 (29.2%)
No	34 (70.8%)
Don't Know	2

** Percentage based on 48 responses.*

- Participants were then queried on the subject of how they had first come to learn of the program. As Table IV.4 indicates, word-of-mouth remains the largest information vehicle for this program. How had participants learned about the WKG CARES Program? Only one person had heard of the program through newspaper advertising. This may support the finding that the program may be missing opportunities as a result of the prohibition against paid WKG CARES Program promotional messages.

Table IV.4

	Number of Responses*
Friend	11 (23.9%)
CAP agency	10 (21.7%)
Relative	6 (13.0%)
Had Participated in Weatherization Program Before	5 (10.9%)
Social Worker	3 (6.5%)
Neighbor	2 (4.3%)
Word of Mouth	2 (4.3%)
Newspaper Ad	1 (2.2%)
Office Where Bills are Paid	1 (2.2%)
Inquired on Own	1 (2.2%)
A Contractor	1 (2.2%)
Grandson's Medical Insurance	1 (2.2%)
State Agency	1 (2.2%)
Knew From HUD	1 (2.2%)
Don't Know	4

*Percentages based on 46 responses.

- As Table IV.5 shows, there is also the lack of a thorough understanding of who installed the measures. While no participant incorrectly credited WKG as the installer of the measures, only 78% could recall that it was a CAP agency who had installed the measures.

Table IV.5

	Number of Responses*
Western Kentucky Gas	0
The CAP Agency	39 (78%)
The State of Kentucky	0
Don't know	11 (22%)

- Customers were asked to rate how satisfied they were with a range of program attributes. Respondents provided ratings on a scale of 1 to 5, where 1 indicated "Extremely Satisfied" and 5 indicated "Extremely Dissatisfied". The responses to the question, "How satisfied were you with the following aspects of the program ...?" were as follows:

Table IV.6

	Average Satisfaction Rating	Number in Average	Number of "Don't Know" Responses
The ease of scheduling the installation	1.23	48	2
The friendliness and helpfulness of the contractor who installed the measures	1.24	49	1
The information you received about the program	1.33	46	4
The quality of the measures installed	1.47	49	1
The amount of time it took to install the measures your home	1.48	50	0
The energy cost savings as a result from the equipment installed	1.50	44	6

- One factor that contributes to either a positive or negative impression of the program, in general, is the performance of the installation contractor. As Table IV.7 demonstrates, with the exception of six customers (12%) who indicated that there had been some form of damage to their homes associated with the weatherization program, respondents reported timely appointments, reasonably good after-project clean-up, and freedom from damage to the premises.

Table IV.7

	Yes	No	Don't know
Arrive at the scheduled time (keep the appointment)*	47 (97.9%)	1 (2.1%)	2
Cause any damage during the installation	6 (12%)	44 (88.0%)	0
Clean up after the installation	46 (92%)	4 (8.0%)	0

**Percentage based on 48 responses.*

The following list of damages were reported by the participants:

- Installer drilled hole through main electrical wire in home (installer fixed this and re-paneled the wall.)
- Installer damaged the hardwood floor
- Customer noticed leak in roof after installer had weatherized home
- Customer noticed leak in pipe after home was weatherized (installer returned and fixed this).
- Customer was unhappy with the repair to a crack in the wall. The installer used red putty.

- The goals of the WKG CARES Program include improving the overall comfort and safety of participants. While more than 90% of respondents indicated at least some improvement in comfort levels in the home, the ability to pay energy bills, home safety and the overall condition of the home, only 77% perceived that the value of their home had been improved by the installation of program measures. Table IV.8 provides answers to the question, "Did any of the following conditions improve since your participation in the WKG CARES Program?"

Table IV.8

	A Great Deal	Somewhat	Not At All	Don't Know
The comfort of your home	37 (74%)	10 (20%)	3 (6%)	0
Your ability to pay your energy bills*	34 (72.3%)	9 (19.1%)	4 (8.5%)	3
The overall condition of your home*	32 (68.1%)	11 (23.4%)	4 (8.5%)	3
The safety of your home*	30 (65.2%)	13 (28.3%)	3 (6.5%)	4
Your ability to pay bills other than energy bills*	26 (56.5%)	15 (32.6%)	5 (10.9%)	4
Your overall health*	17 (47.2%)	8 (22.2%)	11 (30.6%)	14
Whether the value of your home has increased*	11 (31.4%)	16 (45.7%)	8 (22.9%)	15

**Percentages do not include "Don't Know" responses.*

- Table IV.9 investigates the incidence of “Snap-Back”, or, using increased amounts of energy once improvements in energy efficiency have been put into effect, i.e., trading bill savings for increased comfort. Twenty-five percent of respondents did indicate increasing the heating system thermostat setting, while 4% indicated increasing the temperature of their water heater. “Since the measures have been installed, have you increased your comfort level in your home by increasing the temperature settings on ...”

Table IV.9

	Yes	No	Don't know
Raising the heating system thermostat	12 (25%)	36 (75%)	2
Raising the water heater thermostat*	2 (4.3%)	45 (95.7%)	2

**Note that one respondent did not have a water heater.*

- Again using the satisfaction rating scale mentioned earlier, participants were asked to provide an, “Overall satisfaction rating with Western Kentucky Gas as your energy service provider”. WKG received high marks for overall customer satisfaction, with the average response rating of 1.26. (Note that “Extremely Satisfied” =1, “Satisfied” =3, and “Extremely Dissatisfied” =5).

- Table IV.10 explores the issue of growth in positive opinion of WKG as a result of the program and their participation in it. The following responses were provided to the question, "Has your overall opinion of Western Kentucky Gas improved, fallen, or remained the same as a result of your participation in the program?"

Table IV.10

Opinion of WKG	Number of Responses*
Has Improved	22 (53.7%)
Has Fallen	2 (2.4%)
Has Remained the Same	17 (43.9%)
Don't Know	9

*Percentages based on 41 responses.

The one participant who was dissatisfied stated that the local payment center lost her payment and she had to pay her WKG bill twice that month. It is interesting to note that 53.7% of respondents indicated an improvement of their opinion of WKG, while only 29% had reported knowing that WKG paid for the a portion of the measures that had been installed. This apparent dichotomy is probably best explained by recognizing that during the telephone survey conversation, respondents gained a better understanding of WKG's role and may have changed their opinion *as the survey was progressing*.

- Respondents were then asked if they had participated in any other energy conservation programs during the past year. The responses indicate that only one customer (2%) out of 50 respondents had participated in another program.
- When asked whether they had received any other weatherization services from any other state agencies or programs, again only one respondent indicated that they had received such services.

- One important program guideline, as mentioned earlier, was that no more than 10% to 15% of treated homes could be rental dwellings. As Table IV.11 shows, the guideline is being followed for the overall program.

Table IV.11

	Number of Responses
Own	47 (94%)
Rent	3 (6%)

- The average number of years participants have been at their current address was 14.1 years, with 46 years being the longest and 10 months being the least amount of time.
- The program treated at least 9 homes, and potentially more, that were at least 58 years old, Table IV.12 presents responses to the question, "Approximately, in what year was the home built?"

Table IV.12

	Number of Responses*
Between 1980 to 1984	3 (11.5%)
Between 1970 to 1979	2 (7.7%)
Between 1960 to 1969	6 (23.1%)
Between 1950 to 1959	4 (15.4%)
Between 1940 to 1949	2 (7.7%)
1939 or Before	9 (34.6%)
Don't Know	24

**Percentages based on 26 responses.*

- Table IV.13 indicates that 12% of respondents make use of some form of supplementary heat in their homes. Customers were asked, "Do you use an additional or supplemental source of heat for your home?"

Table IV.13

Additional or Supplemental Source of Heat?	Number of Responses
Yes	6 (12%)
No	44 (88%)

All 6 positive respondents stated that they used electricity as the additional/supplemental source of heat.

- When asked whether any major changes had been made in the home since the energy saving measures were installed, four respondents indicated that such changes had been undertaken.

Table IV.14

Major Changes?	Number of Responses
Yes	4 (8%)
No	46 (92%)

The major changes reported by these four program participants were as follows:

Participant 1: Built porches onto the front and back of the home.

Participant 2: Purchased a new dishwasher and dryer.

Participant 3: Purchased a new refrigerator and 2 additional people living in the home.

Participant 4: Purchasing a used refrigerator.

- On average, 2.4 people are currently living in each of the 50 surveyed households.

- The age breakdown of the residents of these dwellings are described in Table IV.15 which follows:

Table IV.15

	Average Number	Number in Average
Under the age of 5	1.50	8
5 - 13 years old	1.45	11
14 - 19 years old	1.09	11
20 - 24 years old	1.25	4
25 - 34 years old	1.17	6
35 - 44 years old	1.19	16
45 - 54 years old	1.09	11
55 - 64 years old	1.30	10
65 - 74 years old	1.21	14
75 or older	1.00	5

- Almost half of the respondents (52%) had head of households between 55 and 74 years of age. Table IV.16 illustrates all head of household ages.

Table IV.16

Age of Head of Household	Number of Responses
20 - 24	1 (2%)
25 - 34	3 (6%)
35 - 44	9 (18%)
45 - 54	7 (14%)
55 - 64	11 (22%)
65 - 74	15 (30%)
75 or older	4 (8%)

- Of survey respondents, 6 (12%) were males and 44 (88%) were females.

V. Impact Evaluation Overview and Findings

This chapter presents the results of the evaluation for the WKG CARES Program from the impact perspective. AEG conducted a statistical billing analysis to estimate the change in annual Mcf consumption for a sample of program participants and non-participants. The resulting net savings estimates were then projected to the program population and used to develop estimates of participant bill savings (\$) and benefit-cost ratios by which the cost-effectiveness of the WKG CARES Program could be judged.

A. Objectives

As mentioned earlier, the following were the primary objectives associated with this evaluation study:

- ▶ To estimate the energy savings (Mcf) attributable to the WKG CARES Program
- ▶ To develop estimates of the WKG CARES Program's cost-effectiveness from the societal, ratepayer, utility, and participant perspectives
- ▶ To develop an estimate of the annual bill savings accruing to program participants

B. Methodology

1. *General Approach*

The general framework of this analysis is a comparison of the pre- and post-treatment Mcf consumption for program participants. These consumption values have been annualized and adjusted for weather effects in order to control two possible confounding influences (differences in the number of days and daily temperatures in the pre- and post-treatment periods). In addition, this study incorporated a comparison group of program non-participants in order to control other possible influences on energy consumption (e.g., economics).

Table V.1 describes the study periods established for this analysis.

Table V.1

Time Period	Designation
November 1995 - October 1996	Pre-Treatment Period
November 1996 - September 1997	Treatment Period
April 1997 - March 1998	Post-Treatment Period

Note that the overlap of the treatment and post-treatment periods (April - September 1997) should not be problematic since the most significant energy impacts would occur during the heating season (November - March) which is contained entirely within the post-treatment period.

2. PRISM Methodology

The primary analysis technique employed in this evaluation was the Princeton Scorekeeping Methodology (PRISM). The energy savings estimated through the PRISM billing analysis is based on the changes in weather-normalized annual energy consumption from the pre- to the post-treatment period on a customer-by-customer basis. Since impacts are measured on a customer-by-customer basis, the PRISM analysis does not segment savings by end-use or individual treatment measure.

PRISM uses an iterative estimation procedure to fit the following model to billing period data for each customer in the analysis sample (for both the pre and post-treatment analysis periods):

$$F_i = \alpha + B H_i (\tau) + \epsilon_i$$

where F_i is the average daily consumption for customer i within each billing period, calculated by dividing billing energy use by the number of days in the billing period. The intercept term (α) measures average daily non-weather sensitive usage. B is an estimate

of the heating slope, and $H(\tau)$ measures heating degree-days per day, based on the reference temperature that optimizes the fit of the model to the data.⁶

The PRISM heating load model generates several model statistics by customer for each analysis period (i.e., pre- and post-treatment):

- Coefficient estimates and t-statistics for the intercept and heating slope
- Annualized baseload (i.e., non-weather-sensitive) energy consumption
- Weather-normalized estimates of annual heating consumption
- An overall estimate of normalized annual energy consumption (NAC)
- Goodness of fit statistics such as R^2 and the coefficient of variation (CV).

These statistics are employed to test the reliability of the PRISM model results, to screen unreliable data from the analysis, and to develop the energy savings estimates. AEG used its standard criteria to remove “unreliable” results from the sample: ($R^2 > .7$, $CV(NAC) < 0.25$). The key model statistics are defined in the following table.

Table - V.2

PRISM Statistic	Description
NAC	Normalized Annual Consumption (Mcf); an estimate of the total annual household energy consumption in a year with typical weather; generated for both pre-treatment and post-treatment periods.
R^2	The amount of variation in the daily energy consumption explained by the PRISM model; a standard goodness-of-fit measurement.
CV(NAC)	Coefficient of variation of the NAC; equal to the $SE(NAC) / NAC$.

⁶ The reference temperature is used to calculate average heating degree days which is equal to the greater of zero, or the reference temperature minus average daily temperature.

3. *Analysis Stages*

There were four primary stages in this analysis:

a. Initial Data Processing and Screening

The participant and non-participant billing data sets were initially formatted to conform with the standard PRISM data structure. Estimated reads were combined with subsequent actual reads, missing periods were identified and associated with a usage of -1, and overlapping periods due to tenant turnover were combined to create a single billing history. The processed data sets were then analyzed to screen out those customers whose billing histories contained certain data anomalies which would adversely impact the reliability of the analysis. Specifically, it was required that customers had to have greater than 100 days of billing data in both the pre-treatment (November 95/ March 96) and post-treatment (November 97/March 98) winters. Furthermore, the PRISM software requires that there be a minimum of four actual reads.

b. Development of Gross Energy Savings Estimates

Normalized Annual Consumption (NAC) estimates were developed for each of the program participants for the pre-treatment and post-treatment periods using the PRISM software. The PRISM outputs were then screened using the associated model statistics to ensure that the results were reliable. For each participant in the final sample, a change-score was calculated as below:

$$\Delta NAC_{\text{gross}} = NAC_{\text{pre}} - NAC_{\text{post}}$$

The sample results were extrapolated to the program population by calculating a mean per-participant energy savings which was multiplied by the total number of participants during the relevant time period (November 96 - September 97). This process yielded an estimate of the gross energy savings.

Note that in the calculation of the mean per-participant savings AEG screened out influential observations by removing from the sample those customers whose ΔNAC fell outside the range of the sample mean plus or minus one standard deviation.

c. Development of Net Energy Savings Estimates

In order to control for the impact of non-programmatic influences on consumption (other than weather), AEG included in its analysis a control group of program non-participants. As with the program participants, pre- and post-treatment NAC values were estimated using PRISM. The mean % change in consumption from the pre-treatment to the post-treatment period was calculated as a control adjustment factor (CAF):

$$\text{CAF} = 1 - [\Sigma(\text{PreNAC}_{\text{non-participant}}) - \Sigma(\text{PostNAC}_{\text{non-participant}})] / \Sigma(\text{PreNAC}_{\text{non-participant}})$$

The pre-treatment NAC for program participants was then adjusted to reflect what would have occurred in the absence of the WKG CARES Program and a net energy savings estimate was calculated:

$$\Delta\text{NAC}_{\text{net}} = (\text{CAF} * \text{NAC}_{\text{pre}}) - \text{NAC}_{\text{post}}$$

The aggregate energy savings was calculated as above using a mean per-participant *net* energy savings. Again, a single screen was employed to remove influential observations (i.e., those whose change-score fell outside the range of the sample mean plus or minus one standard deviation).

d. Development of Benefit-Cost Ratios

The net energy savings values estimated above were incorporated into a benefit-cost software model (BENCOST) which provided benefit-cost ratios from the societal, ratepayer, utility, and participant perspectives.

C. Data Sources

This evaluation required the integration of data from four primary sources: the WKG CARES Program database, WKG customer consumption data, regional weather data, and WKG corporate data :

1. WKG Cares Program Tracking System

The WKG CARES Program tracking system is a comprehensive database containing the relevant data associated with a program participant and the nature of their participation in the program. This includes:

- Customer information and demographic data such as customer name and address
- Structural information such as the size of the structure, existing insulation levels, and primary heating fuel
- Installation data such as the type of measures installed and actions taken through the program

2. Customer Consumption Data

Consumption data was obtained through Western Kentucky Gas's customer information system. Data collected included gas consumption, read dates, read days, and bill codes. WKG initially provided billing data for a total of 230 participants for the time period November 1995 through February 1998. In order to enhance the reliability of the evaluation findings, WKG provided a supplemental billing data set which included an additional one to two months of billing data for 161 program participants. Note that the second set of billing data was limited to those program participants treated by the end of September 1997 whereas the initial data set included customers treated through January 1998. Customers treated after September 1997 were excluded from the final billing analysis due to insufficient post-treatment billing data.

WKG also provided customer billing data for 124 program non-participants for a similar time-frame. Each participating CAP agency had provided WKG with an abbreviated list of its clients who had been treated through a non-WKG program at least one year prior to the inception of the WKG CARES Program. This non-participant group was included in the analysis to control for non-programmatic factors other than weather which could have impacted energy consumption among the low-income population segment through this time-period (i.e., economic and pricing factors).

3. *Weather Data*

A data set of historical daily mean temperatures was obtained from the National Climatological Data Center Internet site and supplemented with current data obtained from the Midwestern Climate Center. The data sets included weather data for three stations in WKG's service territory: Louisville, Bowling Green, and Paducah. Participants and non-participants were matched to the three sites based on a substring of their WKG account numbers.

4. *WKG Corporate Data*

Additional data inputs were provided by WKG which were employed in the benefit-cost analyses which included:

- retail rates
- commodity and supply costs
- current and historical customer and sales figures
- escalation factors
- corporate income tax rates
- net operating revenues
- gross operating revenues
- corporate discount rates

D. Impact Evaluation Findings

1. Sample Design

The following tables present the sample design analysis for the participant and non-participant samples, respectively. A total of 114 participants and 112 non-participants were used in the final change-score analysis. These values represent 71% of the study population and 90% of the initial non-participant sample.

As previously noted, the intent of the screening process is to maximize the reliability of the final savings estimates by eliminating those data points which fail certain reliability criteria or which are considered to be statistical outliers. Furthermore, in order to accurately model natural gas consumption through the winter heating season, it was necessary to require that the billing histories contain actual (*rather than estimated*) data for a minimum of 100 winter days (November - March) in the pre- and post-treatment periods. Table V.3 describes the Participant Sample Design and Table V.4 describes the Non-Participant Sample Design.

Table V.3 - Participant Sample Design

Screen	Sample Size (pre-screen)	Quantity Removed	Sample Size (post-screen)
Initial Sample			161
Less than 100 winter days in pre or post	161	1	160
Less than four actual periods in pre or post	160	5	155
Failed PRISM screens ($R^2 \geq .7$, $CV(NAC) \leq .25$)	155	29	126
Failed Outlier Screen: $\Delta NAC > \bar{x} + \sigma$ or $\Delta NAC < \bar{x} - \sigma$	126	12	114
Final participant sample			114

Table V.4 - Non-Participant Sample Design

Screen	Sample Size (pre-screen)	Quantity Removed	Sample Size (post-screen)
Initial Sample			124
Less than 100 winter days in pre or post	124	1	123
Less than four actual periods in pre or post	123	0	123
Failed PRISM screens ($R^2 \geq .7$, $CV(NAC) \leq .25$)	123	5	118
Failed Outlier Screen: $\Delta NAC > \bar{x} + \sigma$ or $\Delta NAC < \bar{x} - \sigma$	118	6	112
Final non-participant sample			112

2. **Comparison of Key Statistics (Sample and Study Population)**

The following tables demonstrate the representativeness of the final participant sample through a comparison of *measures installed*, *structure size*, and *implementation agency* between the final analysis sample and the study population.

Table V.5 includes for each measure treatment the percentage of participants receiving the treatment in both the final study sample of 112 and study population of 161. As is evident by inspection, the treatment profile for the final sample closely approximates that of the study population. In all cases, the percentage of participants in the final sample who received a particular treatment differed by less than 3% from the percentage of the study population receiving that same treatment.

Table V.5 - Comparison of Treatment Profiles (Sample and Study Population)

Measure	Percentage of Sample	Percentage of Population
Attic Insulation	94%	94%
Wall Insulation	46%	47%
Floor Insulation	71%	70%
Duct Repair	32%	29%
Ceiling Insulation	93%	94%
Hot Water Tank Wraps	63%	62%
Infiltration Measures	95%	96%
Water Heater Replacement	16%	16%
Water Heater Repair	44%	42%
Primary Heat Replacement	39%	40%
Primary Heat Repair	41%	41%
Primary Heat Cleaning	24%	22%
Secondary Heat Replacement	3%	5%
Secondary Heat Repair	7%	6%
Secondary Heat Cleaning	3%	3%

Table V.6 presents a comparison of structural characteristics between the study sample and the population. Energy consumption is a function of building size (among other factors) and, given similar energy conservation treatments, energy savings is a function of building size as well. Therefore, it is important in these impact studies to establish that the size of the homes does not differ between the study sample and population. It is particularly critical for analyses in which savings estimates are developed on a per-participant basis. As the following table demonstrates, the distribution of these structural variables for the sample closely approximates that of the population.

Table V.6 - Structure Size

	Sample Mean	Population Mean
House Volume (f ³)	8,257 (sd =3,212)	8,232 (sd= 3,271)
Living Space (f ²)	1,065 (sd =361)	1,077 (sd = 366)

Table V.7 below illustrates that the distribution of participants across CAP agencies closely matches that of the study population and is not significantly skewed. The most evident differences, which are statistically insignificant, are that the Southern KY CAP is under represented by 2.7% and the Pennyryle CAP over represented by 3.5%.

Table V.7 - Distribution Across CAP Agencies

CAP Agency	Percentage of Sample	Percentage of Population
Audubon	16.7%	17.4%
Blue Grass	3.5%	3.7%
Southern KY	24.6%	27.3%
Pennyryle	37.7%	34.2%
West KY	17.5%	17.4%

3. *Gross and Net Change-Score Results*

Table V.8 presents the results of the change-score analysis. As explained above in the *Methodology* section, mean estimates of pre and post-treatment consumption were developed using PRISM for a sample of the program participants in order to calculate a gross energy savings. The gross per-participant energy savings is then simply the difference between the pre and post-treatment consumptions (i.e, 87.8 - 70.9) or 16.9 Mcf.

Table V.8 - Participant Gross Energy Savings

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	87.8
Mean Post-Treatment Normalized Annual Consumption (Mcf)	70.9
Mean Gross Per-Participant Change in NAC (Mcf)	16.9
Program Participants (n)	161
Program-Wide Energy Savings (Mcf)	2,721

Mean estimates of pre- and post-treatment consumption were also developed for a sample of program non-participants in order to control non-programmatic influences on consumption. These customers experienced a minimal reduction in consumption of one ccf (0.1 Mcf). This represents a 0.13% reduction.

Table V.9 - Non-Participant PRISM Results

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	78.8
Mean Post-Treatment Normalized Annual Consumption (Mcf)	78.7
Mean Per-Participant Change in NAC (Mcf)	0.1
% Change in Annual Consumption	0.13%
CAF (1-% Change in Annual Consumption)	0.9987

The final step in the development of net energy savings was to adjust the participant's mean pre-consumption to account for the "naturally- occurring" reduction in consumption experienced by the program non-participants. This adjustment is a relative adjustment and entails reducing the pre-treatment consumption by 0.13% (or multiplying by 0.9987, the *Control Adjustment Factor*). This adjustment yields a net energy savings of 16.8 Mcf. The total energy savings for the study population is then 2,704.8 Mcf. The following table shows these results.

Table V.10 - Participant Net Energy Savings

Mean Pre-Treatment Normalized Annual Consumption (Mcf)	87.8
Control Adjustment Factor	0.9987
Mean Pre-Treatment Energy Consumption (Mcf) Adjusted for Control Adjustment Factor (CAF)	87.7
Mean Post-Treatment Normalized Annual Consumption (Mcf)	70.9
Mean Net Per-Participant Change in NAC (Mcf)	16.8
Program Participants (n)	161
Program-Wide Energy Savings	2,705

Appendix E contains the raw PRISM Output for program participants and non-participants. Append F contains the output generated by the SAS Proc Means procedure used in developing the change scores for participants and non-participants.

4. BENCOST Model Results

Table V.11 and V.12 present the results of the benefit-cost analysis. For each of the four perspectives, the net present value (NPV) of the program's benefits and costs are calculated and compared. Note that the benefit-cost tests were run with and without the environmental externality adder. This adder captures the social benefit of reducing environmental damage associated with the consumption of natural gas and factors solely into the societal test benefit-cost ratio.

Table V.11 - Benefit-Cost Results (Excluding Externality Adder)

Societal Test	1.12
Ratepayer Impact Measure	0.65
Utility Test	0.66
Participant Test	681.35

Table V.12 - Benefit-Cost Results (Including Externality Adder)

Societal Test	1.17
Ratepayer Impact Measure	0.65
Utility Test	0.66
Participant Test	681.35

Table V.13 summarizes the inputs used in the modified BENCOST model. Retail rates, commodity and demand costs, tax rates and profit margins were provided by Western Kentucky Gas. Program costs were calculated by summing the treatment costs across the study population (\$216,517.42) and allocating the first-year Collaborative costs on a per-participant basis (\$185.50 per treated home). The environmental damage factor for natural gas was obtained from the Minnesota Department of Public Service and is based on 1995 Environmental Protection Agency data.

The social discount rate of 3% is the current rate of inflation and is used to discount the benefits associated with the societal benefit-cost test. Since there is only a one-time program cost, there is no need to discount the future stream of social costs. The use of the inflation rate in the social test is justified given that it is the only neutral inter-generational risk factor which can be used to discount the future streams of program benefits. Costs and benefits for all other tests were discounted at WKG's corporate discount rate of 10%.

Table V.13 - Benefit-Cost Inputs

Benefit-Cost Analysis Input	Value
Retail Rate	\$4.87 / Mcf
Commodity Cost	\$3.81 / Mcf
Demand Cost	\$127.59 / Mcf / Year
Peak Reduction Factor	1%
Environmental Damage Factor	\$0.00 / Mcf (\$0.27 Mcf)
Variable O & M Cost	\$0.03 / Mcf
Total Sales	49,693,865 Mcf Growth Rate = 4.4%
Total Customers	173,958 Growth Rate = 2.7%
Utility Discount Rate	10%
Social Discount Rate	3%
Effective State and Federal Tax Rate	38%
Net Operating Income as % of Total Operating Income	5.8%
Program Costs (<i>Direct Installation Costs</i>)	\$246,382.75
Program Participants	161
Per-Participant Energy Savings	16.8 Mcf
Measure Lifetime	20 years

Appendix F contains the detailed BENCOST Model Inputs and Outputs.

E. Participant Bill Savings

Based on the estimates of energy savings, the annual bill savings for program participants can be estimated at \$81.84 (1998\$) based on an average of January - March, 1998 residential retail rates. This represents 16.7% of the typical participant's annual natural gas bill. The bill savings estimates were derived from a net energy savings of 16.8 Mcf with a retail rate of \$4.87 per Mcf and a monthly customer charge of \$5.10.

VI. Overall Conclusions and Recommendations

A. General Conclusions

WKG CARES appears to be functioning effectively with minimal administrative support required, either from WKG itself, or from the Collaborative under whose auspices the program functions. The program is a good example of the way in which a DSM program can be designed that capitalizes on the strengths of a number of partners in the implementation process.

WKG CARES focuses on qualifying low-income residential homeowners that meet firm federal income guidelines. The program reaches these customers through promotional or marketing channels already established by the five CAP agencies who currently participate in the delivery of program services. WKG CARES promotional efforts, by both the CAPs and WKG are somewhat weak and could be improved upon, particularly if WKG were authorized to commit to some amount of paid-for advertising.

Since the CAP agencies already have staffs that install weatherization measures, there is no need for WKG to secure its own implementation contractor. As a result, the program manifests a high degree of inherent efficiency as its infrastructure is already in place via the agencies. The CAPs are positive in their approach to serving low-income customers and appreciative of the opportunity to partner with WKG in this effort. Although program parameters were established regarding allowable program measures, the agencies are afforded considerable latitude in the way in which they commit WKG Program budgets.

Overall program goals were well-defined initially, and status reports are provided monthly by WKG. However, there isn't a clear understanding among *all* of the CAPs as to the current goals or their expected level of participation. The CAPs do recognize that the original program limit of \$1,500 per customer was altered to allow expenditures of up to \$2,000 per customer, as long as the overall average remained at \$1,500. WKG CARES has not met its participation targets during the first year of operation, due at least partially to the fact that program funds cannot be used for program promotion. Besides the inability to promote the program, there are other barriers to participation that are the result of federal or state regulation that would be difficult if not impossible to alter. It is possible that

by undertaking a prudent amount of paid advertising, WKG CARES participation levels could be improved to the point of goal attainment.

There is a certain lack of standardization in the ways in which an educational "component" is delivered coincident with weatherization services. Similarly, positive public relations opportunities are lost for WKG as the CAPs do not uniformly explain to customers that a portion of the benefits they will receive are being provided by WKG.

More than 50% of customers who participated in the program indicated an improvement in their opinion of WKG once gaining an understanding of WKG's role in the program. Few however, understood WKG's contributory role in the program at the time of the survey.

Overall, average customer reaction to the various elements of the program, i.e., ease of scheduling, opinion of the workforce, quality, cost savings, etc., were very positive, with each major scoring topic averaging between 1.23 and 1.50 on a scale of 1 to 5 (1 = "extremely satisfied"; 5 = "extremely dissatisfied").

The program delivers real benefit for participants in terms of actual energy-use reduction, while increasing comfort levels. The impact evaluation demonstrated that, collectively, the 161 customers whose post-treatment gas consumption history was sufficient to allow calculation of savings attributable to the program, saved 2,705 Mcf of gas.

The net per-participant energy savings has been estimated as 16.8 Mcf for those WKG customers who participated in the program between November 1996 and September 1997. This represents approximately a 19% reduction in energy consumption. Program participants thereby experienced an average bill reduction of \$82 (a decrease of 16.7% in a typical participant's natural gas bill). Additionally, the fact that the program passes the Societal benefit-cost test, with a score of 1.12 (excluding environmental externality benefits), which was a key target in the original program design.

B. Recommendations

The following recommendations are suggested to improve the implementation of WKG CARES. This is already an effective DSM program and community service. These recommendations are offered as a means of further improving an already valuable program.

From the process perspective:

- **Secure permission from the Collaborative to prudently fund paid promotional efforts.**

The effectiveness of a promotional strategy relying solely on free advertising time/space was limited in this program. If a *small* portion of the program funding surplus can be used to buy appropriated advertising coverage, the investment may not only attract further participants, but will also help WKG and the Collaborative in maximizing the benefits made available from the program over its three-year implementation period. It is recognized that the level of such spending must be tightly controlled to ensure continued positive benefit/cost analysis results.

- **Hold more frequent status meetings with CAP agencies. Use these as an opportunity for cross-sharing of ideas as well as a vehicle for the transmission of goal achievement reports.**

Throughout the course of the evaluation, it became apparent that there are certain program elements where a common understanding among the CAPs and WKG is not present. One means of improving the situation is to reinstate the periodic meetings between all parties that were present at the beginning of the program. The cross-sharing of ideas, as well as the exploration of common problems and concerns may help to heighten the effectiveness and efficiency of the program.

- **Develop an educational supplement that can be uniformly distributed by all CAPs to all incoming participants that heightens the conservation message while clearly conveying the role played by WKG.**

There is no standard "educational component" offered by all CAPS. While each agency reports that it provides information to all participants, it is likely that the lack of a formalized "curriculum" or set of educational materials results in somewhat incomplete transfer of energy-saving suggestions and ideas to participants. It is worthwhile for WKG to consider either preparing materials on its own or securing ready-made booklets, brochures, etc., that it can supply to the CAPs for subsequent distribution to participants.

- **Contact the remaining CAP agencies that share a portion of WKG's territory and solicit their participation in the program.**

Three additional CAP agencies serve WKG customers. They are not included in the current roster of participating agencies, nor are they understood as having a significant WKG customer population. Nonetheless, WKG should contact these agencies for the purposes of assessing its interest in joining with the other five CAPs. Since there is no incremental expense on WKG's part to add additional CAP agencies, any contribution of additional participants from the additional agencies will only stand to benefit the program.

- **Design and implement written contracts with each of the participating CAP agencies.**

Written contracts do not presently capture the relationship between the agencies and WKG. For the purposes of liability protection, as well as to exactly define the responsibilities of all parties, written contracts should be set in place.

From the impact perspective:

- **These results indicate that the WKG CARES Program should continue as is with no modifications in delivery or measure specification suggested by the level of the achieved program impacts.**

The original program planning and evaluation of measures to be included have been confirmed as a cost effective mix of weatherization components. The installation of these measures should continue without alteration throughout the balance of the program cycle.

- **The impact evaluation could not determine whether there is any degradation in the savings level through time. WKG should consider performing an evaluation of year-one participants following year-three to determine if such savings degradation has occurred.**

Such an analysis would determine the level of long-term benefit made available to customers through program participation. The evaluation will also show if customers have traded off further increases in comfort level for decreased bill savings, or whether some treatable element in the home's building shell has further deteriorated, thus reducing the effectiveness of the installed measures. A study of this type would not be appropriate until after the end of the three-year program cycle.

Appendix A - Bill Stuffer

Appendix B - Monthly Summary Report

WKG CARES MONTHLY REPORT (interim) - October 1997

AGENCY	FUNDS			Program Year 1997	Avg/Home Program Year 1997	HOMES			Completed Audit Prog Year 1997
	Begin Balance	October	Program Year 1997			Begin Balance	Oct	Prog Year 1997	
Audubon	\$37,752.91	\$1,510.56	\$39,263.47	\$1,308.78	28	2	30	2	
Blue Grass	\$8,268.79	\$0.00	\$8,268.79	\$1,378.13	6	0	6	1	
Pennyrile	\$76,956.52	\$10,807.13	\$87,763.65	\$1,438.75	55	6	61	6	
Southern KY	\$52,072.45	\$10,684.65	\$62,757.10	\$1,255.14	44	6	50	3	
West KY	\$41,466.75	\$7,500.00	\$48,966.75	\$1,483.84	28	5	33	2	
sub total	\$216,517.42	\$30,502.34	\$247,019.76	\$1,372.33	161	19	180	14	
Collaborative	\$33,389.82		\$33,389.82	\$185.50					
GRAND TOTAL	\$249,907.24	\$30,502.34	\$280,409.58	\$1,557.83					

copies: G. Smith, A. Chevront, S. Crocker, K. Bowmar, M. Marks
H. Jones, B. Vincent, S. White, M. McGill, S. Nest

**Appendix C - Program Manager Protocol, CAP Agency
Protocol & Participant Telephone Survey Instrument**

Western Kentucky Gas WKG CARES Participant Survey

Customer Information:

Name: _____

Address: _____

Telephone Number: _____

Survey Number: _____

Response Codes:

- | | |
|-----------------|------------------|
| 1. Busy signal | 7. Left message |
| 2. Call back | 8. Moved |
| 3. Wrong number | 9. Disconnected |
| 4. No answer | 10. Completed |
| 5. Refused | 11. Has no phone |
| 6. Left message | 12. Other: _____ |
| | _____ |

CONTACT RECORD				
Attempts	Interviewer	Date	Time	Response
1				
2				
3				
4				
5				

[INTERVIEWER: ASK TO SPEAK TO THE PERSON NAMED ON THE SAMPLE]

Introduction: Good morning/afternoon/evening, my name is _____ and I'm calling long distance from Applied Energy Group, a market research company. We are conducting a brief survey on behalf of Western Kentucky Gas. The purpose of this survey is to discuss the energy saving measures that were recently installed in your home. This survey will only take a few minutes of your time. Your feedback is very important to Western Kentucky Gas, and please be assured that your answers will be kept strictly confidential.

1. I would like to talk to you about the energy saving improvements that were installed in your home at [READ ADDRESS]. Is that the address that I have reached you at?

- yes [continue]
- no [terminate]
- don't know [terminate]
- refused [terminate]

2. Are you a Western Kentucky Gas customer?

- yes [continue]
- no [terminate]
- don't know [terminate]
- refused [terminate]

3. Did you have energy savings measures installed in your home by [INSERT APPROPRIATE CAP AGENCY NAME] over the past year or so, free of charge?

- yes [continue]
- no [terminate]
- don't know [terminate]
- refused [terminate]

4. Are you aware that Western Kentucky Gas paid for some of the energy savings measures that were installed at your home?

- yes
- no
- don't know
- refused

5. How did you learn about this program?

6. Who installed the energy saving measures in your home?
[READ LIST]

- Western Kentucky Gas
- the [insert CAP agency name] agency
- the State of Kentucky
- don't know
- refused

7. Please tell me how satisfied you were with each of the following using a scale of 1 to 5 where "1" is "extremely satisfied" and "5" is "extremely dissatisfied". How satisfied were you ...?

	<u>Extremely Satisfied</u>		<u>Satisfied</u>		<u>Extremely Dissatisfied</u>	<u>Don't Know</u>
a. The amount of time it took to install the measures your home	1	2	3	4	5	6
b. The information you received about the program	1	2	3	4	5	6
c. The ease of scheduling the installation	1	2	3	4	5	6
d. The quality of the measures installed	1	2	3	4	5	6
e. The friendliness and helpfulness of the contractor who installed the measures	1	2	3	4	5	6
f. The energy cost savings as a result from the equipment installed	1	2	3	4	5	6

8. Did the installer...

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
a. Arrive at the scheduled time? [keep the appointment]	1	2	3
b. Cause any damage during the installation?	1	2	3
c. Clean up after the installation?	1	2	3

9. Now we'd like to know whether or not you feel that any of the following conditions have improved since your participation in the WKG Cares program. Do you feel that the following has improved "a great deal", "somewhat" or "not at all"?

	<u>A Great Deal</u>	<u>Somewhat</u>	<u>Not At All</u>	<u>Don't Know</u>
a. The comfort of your home	1	2	3	4
b. Your overall health	1	2	3	4
c. The safety of your home	1	2	3	4
d. The overall condition of your home	1	2	3	4
e. Your ability to pay your energy bills	1	2	3	4
f. Your ability to pay bills other than energy bills	1	2	3	4
g. Whether the value of your home has increased	1	2	3	4

10. Since the measures have been installed, have you increased your comfort level in your home by increasing the temperature settings on ...

	<u>Yes</u>	<u>No</u>	<u>Don't know</u>
a. the heating system thermostat?	1	2	3
b. the water heater?	1	2	3

11. Again using a scale of 1 to 5 where "1" is "extremely satisfied" and "5" is "extremely dissatisfied": How satisfied are you with Western Kentucky Gas as your energy service provider overall? (*circle one choice*)

<u>Extremely Satisfied</u>	<u>Satisfied</u>	<u>Extremely Dissatisfied</u>	<u>Don't Know</u>
1	2	3	4
			5
			6

12. Has your overall opinion of Western Kentucky Gas improved, fallen, or remained the same as a result of your participation in the program? (*circle one choice*)

- improved
- fallen
- remained the same
- don't know
- refused

If not satisfied in 11 or 12, why are you not satisfied with Western Kentucky Gas ?
[RECORD VERBATIM]

13. Have you participated in any other energy conservation programs in the last year?

- yes [go to question 13a]
 no [go to question 15]
 don't know [go to question 15]

13a. If yes, who offered it?

[IF SPONSORED BY ANY ORGANIZATION OTHER THAN A STATE AGENCY,
GO TO QUESTION 15; ELSE GO TO QUESTION 14.]

14. Have you received any other weatherization services from any other state agencies or programs?

- yes
 no

My last few questions are for statistical purposes only.

15. First, do you own or rent your home?

- own
 rent
 don't know
 refused

16. How long have you been at this address? [IF LESS THAN ONE YEAR, RECORD MONTHS]

RECORD YEARS _____ RECORD MONTHS _____

17. Approximately, in what year was your home built? [READ LIST IF NECESSARY]

- after 1995
- between 1990 to 1994
- between 1985 to 1989
- between 1980 to 1984
- between 1970 to 1979
- between 1960 to 1969
- between 1950 to 1959
- between 1940 to 1949, or
- 1939 or before
- don't know

18. Do you use an additional or supplemental source of heat for your home?

- Yes [go to question 19]
- No [skip to question 20]

19. What is the additional or supplemental source of heat for your home? [DO NOT READ LIST. *Multiple answers accepted.*]

- gas from underground pipes serving the neighborhood/natural gas
- gas - bottled, tank, or LP/Propane
- electricity
- fuel oil
- kerosene
- wood
- don' t know

20. Have you made any major changes in your home since the energy saving measures were installed? [*new major appliances, more/less people in home, people home more/less than before, added rooms/shut off rooms*] [RECORD VERBATIM]

21. Including yourself, how many people live in your household at least six months of the year?

RECORD #: _____

22. How many of these people are.. [READ LIST]?

Under the age of 5	_____
5 - 13 years old	_____
14 - 19 years old	_____
20 - 24 years old	_____
25 - 34 years old	_____
35 - 44 years old	_____
45 - 54 years old	_____
55 - 64 years old	_____
65 - 74 years old	_____
75 or older	_____
Refused [DO NOT READ]	

23. What is the age of the head of your household? [IF ONLY ONE IN HOUSEHOLD, ASK:] What is your approximate age please? [READ LIST IF NECESSARY]

Under 18

18 - 19

20 - 24

25 - 34

35 - 44

45 - 54

55 - 64

65 - 74

75 or older

Refused [DO NOT READ]

24. RECORD FROM OBSERVATION

Male

Female

THOSE ARE ALL OF MY QUESTIONS. THANK YOU VERY MUCH FOR DOING THIS SURVEY.

WKG CARES 1997 Program Evaluation
Process Evaluation
Program Manager Protocol

A. Introduction

1. Title/role
2. What are your general responsibilities?
3. How long have you been involved with the WKG CARES Program? What are your specific responsibilities with regard to WKG CARES?
4. Please give a complete description of the WKG CARES Program.

B. Goals

1. What do you see as the goal/purpose of WKG CARES?
2. Would you say the program is currently achieving its goals and objectives? In what ways is it achieving them? [*PROBE: Do you think these goals/purposes are achievable under the current program design and with current resources? Why or why not?*]
3. Does WKG CARES have any specific customer relations goals? If yes, what are they?

C. Program Promotion

1. Please describe how potential program participants are selected. How do you define an eligible customer? How were these eligibility standards determined?
2. Do you have input to the way in which the program is promoted by the CAP agencies? Are you satisfied or dissatisfied with this process?
3. Are any promotional activities undertaken by WKG independent of these agencies? How are any such promotions coordinated with the CAPs?
4. Do you think participants understand WKG's role in the improvements they receive? Would you like to change this in anyway?

D. Program Delivery

1. Please describe the process through which a customer receives services through the CAP agencies and how WKG CARES is folded into the process. Take me step by step through the program delivery, telling me who does what and what happens.
2. Have any problems been discovered with services provided by the CAPS?
3. Have there been any changes to the overall process since the program began, apart from those already discussed? If so, what and why?
4. How satisfied do you think participants are with the program? Why?
5. What obstacles do the CAP agency work crews encounter? How do they deal with those obstacles? Are you satisfied with the supervision of the crews that is supplied by the CAP agencies?
6. How often are post-inspections done by the CAP agencies? Does each participant have a post-inspection? What specific quality control measures does WKG have in place? Has WKG performed additional post-inspections for quality control? How often is this done? What kinds of problems have been discovered? If discovered, are the agencies willing to remedy the issue?
7. Do you feel the program needs to offer any additional services? If so, which services?

E. Program Management

1. Please describe the management structure for the WKG CARES program. Who are the key players in the program delivery from both WKG and the agency perspective? What are their roles? Please describe any changes since the program started.
2. Has the program management structure on either side changed since the program began?
3. Describe how WKG staff and the CAP agencies work together. How successful/satisfactory is that relationship? Why?
4. Is WKG satisfied with the CAP agencies' work on the program to date? Why/why not?
5. Did all of the five agencies presently involved with the program, begin with the initiation of the program last year? Have any been added or dropped? Why?

F. Data Tracking/Evaluation

1. How does WKG track information on WKG CARES? Who collects and stores the information? What information is collected? How is it stored?
2. What reports do you receive on program progress from the agencies? Are they adequate? Have you given the agencies specific forms and report formats they must prepare and submit? Are they doing so?
3. Do you have any suggestions for improving the data tracking system and reporting?
4. What kinds of evaluation efforts do you think are important for this program? What information would you like to have about how the program is working?

G. Summary Comments

1. What are the greatest strengths of the WKG CARES program? Likewise, what are the program's weaknesses?
2. What do you feel are the biggest challenges in the program's future?
3. Do you have any additional comments?

**WKG CARES 1997 Program
Process Evaluation
Community Action Agency Protocol**

A. Introduction

I'd like to start with some background information.

1. What is your official title, and what are your responsibilities?
2. How large is your organization? [*PROBE for number of employees and approximate size of area served/number of people served.*]
3. What do you see as the purpose of the WKG CARES program? What is your understanding of the program goals and objectives?
4. What are your organization's goals for your participation in this program?
 - a. Do you establish goals cooperatively with WKG?
 - b. Are you reaching any goals that you established with WKG? [*PROBE for specific numbers*] How often do you talk about program status with WKG?

B. Program Implementation

1. Who in your organization, besides yourself, is involved in the program? Are you still involved?
2. What is your understanding of the reasons why your organization was involved in the delivery of WKG program services? [*PROBE: What were your expectations?*] How did your experiences differ from your expectations?
3. What specific services does your organization provide outside of the WKG CARES program? What additional services can you provide to your clients because of the WKG CARES program? How do you determine the level of additional funds to use for customers who are eligible for the WKG CARES program versus those that do not qualify for the program?
4. Have you or your staff received any instruction about the program from WKG? If so, what type and when? Is this sufficient?
5. Has your staff had many questions and concerns about the WKG CARES program? Does your staff have any questions or concerns that have developed since the program began? If so, what type of questions or concerns? How have they been answered or handled by WKG?

6. Please describe the process through which an eligible low-income household receives expanded services from your organization under the WKG CARES program.
7. How is eligibility established for this program? [*PROBE to see if they think this criteria is sufficient means for establishing eligibility.*]
8. Are there any measures not eligible for the WKG CARES funds that you think should be included? Why?

C. Program Promotion

1. Please describe how your agency was recruited to become involved with the WKG CARES program. What led you to participate in the program? What do you believe are the benefits of participation?
2. Prior to your involvement with the program, did you have any concerns about it? If so, what were they, and how were they resolved?
3. How do you promote the services your organization offers? Do you do anything extra or different to promote the program to households you believe will be eligible for WKG benefits. How does promotion differ for ineligible versus eligible households?
4. Is there an educational component that you promote? Is it offered to all of your organization's retrofit clients or only to recipients of specific measures? Please explain.

D. Customer Response

1. What energy and program issues do customers appear to be most concerned with?
2. Do customers appear to be satisfied with the energy efficiency services provided by your organization. What about with measures facilitated through the WKG CARES program?
3. How important do you think the non-quantifiable services (i.e. increased comfort, health, safety, improved ability to pay electricity bill, improved condition of household) are to program participants?

E. Interaction with WKG

1. With whom do you work at WKG?
2. How would you describe the relationship between your organization and WKG? [*PROBE for the strengths, weaknesses, potential improvements*]

3. How is the level of communication between your organization and WKG?
[*PROBE for the strengths, weaknesses, ways to improve*]
4. How frequent are communications with WKG?
5. Based on your experience in the program, are there any changes that you think should be considered to make your dealings with WKG more effective?

F. Data Tracking

1. How do you track customers who receive program services?
2. What records do you keep on services delivered? Are the records of customers who receive benefits from the WKG CARES program different from those that do not? Please explain.
3. How would you describe the tracking methods used? (paper, computer, etc.)
4. Does WKG provide you with specific forms which you must submit for eligible customers? What is your opinion of these forms?
5. How often do you submit invoices to WKG? Are you paid in a timely fashion?
6. Does WKG ever accompany your staff during a post inspection? How often? How would you describe the level of control exercised by WKG? Does WKG perform any quality control?

G. Conclusion

1. To conclude, what do you perceive to be the strengths of WKG CARES program over the past year?
2. In what ways could the program be improved?
3. Do you have any additional comments?

Appendix D - PRISM Modeling Output

PRISM Output
Participant
Pre-Treatment
Paducah Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	3	PART	0.9822	54.55	2.61	0.543	0.160	0.278	0.035	821.67	39.82
2	6	PART	0.9967	63.62	1.29	0.478	0.103	0.242	0.011	1107.51	20.83
3	16	PART	0.9846	46.00	1.50	0.094	0.059	0.202	0.021	269.82	16.03
4	19	PART	0.9927	64.15	1.68	-0.061	0.185	0.309	0.018	1203.34	37.43
5	23	PART	0.9951	61.80	1.41	-0.016	0.147	0.369	0.020	1283.37	34.92
6	25	PART	0.9837	64.00	2.46	0.827	0.164	0.168	0.014	964.30	32.59
7	30	PART	0.9976	67.19	0.95	0.016	0.100	0.239	0.007	1110.56	19.23
8	33	PART	0.9955	66.85	1.36	-0.005	0.072	0.126	0.005	572.23	13.76
9	35	PART	0.9824	59.03	2.94	0.234	0.074	0.102	0.012	388.56	17.53
10	36	PART	0.9935	61.00	1.77	-0.037	0.140	0.271	0.018	891.56	29.83
11	37	PART	0.9877	64.80	2.09	-0.034	0.101	0.138	0.010	553.96	22.10
12	47	PART	0.9946	58.71	1.71	0.347	0.075	0.191	0.014	685.41	17.28
13	48	PART	0.9919	71.54	2.12	-0.038	0.086	0.088	0.005	485.47	13.49
14	49	PART	0.9950	59.71	1.42	0.561	0.073	0.186	0.011	781.40	17.28
15	50	PART	0.9889	66.32	2.13	0.292	0.104	0.120	0.008	640.04	19.68
16	51	PART	0.9602	43.82	3.54	0.439	0.109	0.294	0.075	441.50	31.95
17	52	PART	0.7625	41.00	3.92	0.726	0.447	0.494	0.164	621.58	124.93
18	53	PART	0.9898	54.49	1.65	0.441	0.058	0.134	0.011	460.85	14.23
19	54	PART	0.9751	54.21	2.54	-0.106	0.166	0.251	0.032	513.27	41.24
20	59	PART	0.9912	59.57	2.21	1.063	0.086	0.165	0.015	896.88	19.62
21	62	PART	0.9926	69.35	1.96	0.157	0.103	0.122	0.007	683.71	17.84
22	63	PART	0.9938	64.67	1.15	0.144	0.038	0.125	0.010	563.28	18.52
23	64	PART	0.9909	66.70	1.80	0.283	0.118	0.150	0.008	778.21	23.18
24	65	PART	0.9965	64.00	1.06	0.087	0.094	0.247	0.009	1005.27	20.75
25	66	PART	0.9964	61.59	1.28	0.189	0.119	0.311	0.015	1143.77	25.58
26	67	PART	0.9369	70.53	5.18	0.257	0.383	0.154	0.023	926.95	71.25
27	72	PART	0.9979	59.80	1.06	0.469	0.031	0.122	0.005	550.67	7.12
28	83	PART	0.9778	64.82	2.99	0.088	0.361	0.322	0.033	1355.16	73.07
29	84	PART	0.8769	67.00	5.71	-0.087	0.491	0.169	0.031	743.08	93.39
30	85	PART	0.9931	63.46	1.81	0.058	0.063	0.103	0.006	415.48	12.53
31	128	PART	0.9940	66.00	1.50	0.153	0.184	0.283	0.013	1288.42	35.23
32	131	PART	0.9940	63.37	1.73	0.300	0.128	0.230	0.014	984.82	25.48
33	139	PART	0.9736	58.00	3.22	1.138	0.145	0.168	0.023	885.35	34.37
34	154	PART	0.8672	85.00	-9.00	-1.133	0.720	0.177	0.022	1321.22	129.99
35	155	PART	0.9729	55.75	3.25	0.477	0.118	0.155	0.023	550.41	29.35
36	156	PART	0.9931	64.12	1.72	0.736	0.154	0.250	0.015	1260.21	30.28
37	157	PART	0.9855	65.15	2.44	0.686	0.099	0.102	0.008	678.75	18.73
38	166	PART	0.9579	60.00	4.22	0.078	0.109	0.100	0.017	344.58	26.35

PRISM Output
Participant
Post-Treatment
Paducah Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	1	PART	0.9894	62.19	1.98	0.691	0.088	0.156	0.015	810.60	19.73
2	2	PART	0.9580	64.59	3.59	0.327	0.103	0.081	0.013	448.09	21.71
3	3	PART	0.9769	65.56	2.76	0.328	0.124	0.123	0.014	645.79	24.81
4	4	PART	0.7255	79.00	30.24	-0.037	1.517	0.066	0.021	501.51	73.91
5	6	PART	0.9902	60.25	1.31	0.709	0.102	0.254	0.018	1070.68	25.49
6	7	PART	0.9549	71.00	5.68	0.108	0.349	0.136	0.020	790.70	44.88
7	8	PART	0.9832	60.17	2.21	0.566	0.073	0.117	0.013	580.83	16.43
8	9	PART	0.9766	68.10	2.88	0.178	0.247	0.191	0.018	987.48	41.94
9	10	PART	0.9208	71.72	4.70	0.088	0.175	0.072	0.011	445.25	30.31
10	11	PART	0.9969	63.25	0.99	0.309	0.075	0.240	0.011	1021.57	16.04
11	12	PART	0.9937	58.35	1.01	0.941	0.095	0.295	0.017	1187.47	23.12
12	13	PART	0.9857	62.98	2.38	0.086	0.148	0.222	0.024	858.15	31.88
13	14	PART	0.9830	59.71	1.87	0.367	0.059	0.101	0.010	448.50	13.95
14	15	PART	0.9080	62.73	5.75	0.199	0.225	0.133	0.035	562.02	47.31
15	16	PART	0.9423	49.59	3.67	0.081	0.060	0.123	0.043	222.28	24.35
16	17	PART	0.9665	50.64	3.26	0.450	0.046	0.113	0.033	357.52	18.11
17	18	PART	0.9881	59.38	1.43	0.321	0.041	0.086	0.007	380.15	9.71
18	20	PART	0.9890	61.08	1.78	0.661	0.058	0.109	0.010	608.07	12.78
19	21	PART	0.9928	62.87	1.61	-0.026	0.057	0.136	0.010	494.74	12.77
20	22	PART	0.9964	62.15	0.99	0.187	0.040	0.126	0.006	516.47	8.77
21	24	PART	0.9974	58.51	0.75	0.316	0.027	0.130	0.005	492.01	6.68
22	25	PART	0.9859	61.35	1.79	0.703	0.094	0.162	0.015	809.47	21.45
23	26	PART	0.9798	59.72	2.29	0.606	0.051	0.079	0.009	466.18	11.49
24	27	PART	0.9632	58.70	2.99	-0.011	0.072	0.089	0.015	256.98	16.92
25	29	PART	0.9798	57.84	2.06	1.008	0.084	0.152	0.018	790.37	21.05
26	30	PART	0.9956	65.43	1.23	0.002	0.086	0.198	0.010	838.81	17.16
27	31	PART	0.9816	64.34	2.22	0.297	0.110	0.134	0.013	643.64	22.88
28	32	PART	0.9829	70.52	2.34	0.421	0.095	0.087	0.006	621.97	16.59
29	33	PART	0.9897	65.11	1.84	0.014	0.063	0.096	0.007	403.50	12.43
30	34	PART	0.7607	48.00	5.96	0.770	0.268	0.291	0.191	683.82	110.88
31	35	PART	0.9819	25.33	-9.00	0.160	0.056	2.388	0.103	318.89	20.26
32	36	PART	0.9940	61.59	1.19	-0.021	0.075	0.198	0.012	677.36	17.19
33	38	PART	0.9853	62.51	2.34	0.871	0.154	0.235	0.026	1173.94	33.51
34	39	PART	0.9806	60.00	2.14	0.452	0.096	0.151	0.017	640.31	22.58
35	40	PART	0.9726	65.15	3.00	1.422	0.176	0.163	0.020	1198.11	34.66
36	41	PART	0.9868	67.43	2.48	0.118	0.154	0.159	0.014	787.00	25.94
37	43	PART	0.9844	69.06	2.86	-0.048	0.138	0.108	0.009	529.19	20.27
38	44	PART	0.9577	67.18	3.83	0.296	0.118	0.072	0.010	441.66	20.88

PRISM Output
Participant
Post-Treatment
Paducah Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	45	PART	0.9341	66.40	4.86	0.784	0.323	0.170	0.031	1043.15	60.24
40	46	PART	0.9745	58.36	2.46	0.101	0.078	0.117	0.016	371.15	18.73
41	47	PART	0.9510	48.86	2.16	0.483	0.079	0.196	0.043	466.78	29.14
42	48	PART	0.9874	62.34	2.21	0.338	0.055	0.093	0.010	457.00	11.79
43	49	PART	0.9552	61.68	3.28	0.405	0.128	0.123	0.020	575.00	29.60
44	50	PART	0.9768	59.98	2.10	0.884	0.110	0.164	0.018	840.65	25.53
45	52	PART	0.9739	71.96	3.82	-0.227	0.305	0.171	0.018	904.00	42.79
46	53	PART	0.9120	56.39	3.92	0.424	0.108	0.100	0.024	407.40	27.69
47	54	PART	0.9022	49.46	4.63	0.153	0.226	0.344	0.129	590.90	72.57
48	55	PART	0.9848	70.92	2.61	0.182	0.220	0.178	0.014	1046.73	33.33
49	56	PART	0.9486	70.00	4.71	0.075	0.143	0.062	0.009	355.19	21.37
50	57	PART	0.9893	65.70	1.90	0.138	0.059	0.085	0.006	416.78	11.55
51	58	PART	0.9079	63.42	5.76	0.493	0.268	0.150	0.039	752.17	57.04
52	59	PART	0.9691	65.47	3.44	0.520	0.151	0.127	0.018	728.85	29.61
53	60	PART	0.9730	71.00	4.20	0.131	0.201	0.107	0.012	637.53	26.99
54	61	PART	0.9874	57.21	1.71	0.047	0.068	0.159	0.016	440.33	16.54
55	64	PART	0.9732	66.40	2.98	0.541	0.165	0.143	0.016	833.66	31.53
56	65	PART	0.9571	70.08	4.25	-0.089	0.232	0.112	0.014	562.47	36.33
57	66	PART	0.9558	68.94	4.88	0.082	0.269	0.135	0.021	707.15	42.83
58	67	PART	0.9878	68.70	2.09	-0.074	0.156	0.170	0.012	817.84	26.94
59	68	PART	0.9758	60.49	2.22	0.364	0.113	0.152	0.017	627.71	26.19
60	70	PART	0.9760	56.10	2.35	0.392	0.056	0.103	0.015	399.37	13.85
61	71	PART	0.8737	68.84	8.08	-0.039	0.437	0.130	0.033	634.52	69.88
62	72	PART	0.9853	60.48	2.01	0.133	0.056	0.097	0.010	364.55	13.09
63	73	PART	0.9802	67.00	2.63	0.288	0.167	0.149	0.014	787.32	29.07
64	74	PART	0.9520	66.61	4.09	0.467	0.141	0.089	0.014	570.86	26.67
65	75	PART	0.9503	68.09	4.56	-0.010	0.187	0.093	0.014	445.73	30.18
66	76	PART	0.9860	60.23	1.64	0.238	0.071	0.128	0.011	495.47	16.42
67	77	PART	0.9939	50.23	2.01	-0.017	0.060	0.179	0.032	290.16	18.96
68	82	PART	0.9777	61.79	2.48	0.552	0.083	0.110	0.013	584.06	18.50
69	83	PART	0.9853	67.00	2.33	0.472	0.260	0.275	0.023	1431.65	46.87
70	84	PART	0.9229	60.91	4.26	0.467	0.203	0.152	0.034	674.91	48.73
71	85	PART	0.9910	70.00	2.12	-0.051	0.067	0.069	0.004	344.81	9.90
72	86	PART	0.7505	73.00	13.16	0.783	0.342	0.048	0.017	576.49	46.19
73	87	PART	0.9380	72.00	5.32	0.322	0.296	0.108	0.016	743.64	43.02
74	88	PART	0.9524	65.40	4.57	0.415	0.322	0.213	0.039	1053.58	61.78
75	89	PART	0.9795	71.00	2.99	1.182	0.112	0.078	0.007	863.34	16.91
76	90	PART	0.9541	67.85	4.44	-0.067	0.220	0.123	0.019	563.48	39.16

PRISM Output
Participant
Post-Treatment
Paducah Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	92	PART	0.9181	65.06	5.21	0.798	0.165	0.085	0.018	646.41	32.89
78	93	PART	0.9752	57.00	2.38	0.590	0.084	0.141	0.020	587.57	20.78
79	94	PART	0.9793	72.00	3.11	0.374	0.104	0.067	0.006	522.97	14.94
80	95	PART	0.9085	77.49	9.50	0.177	0.440	0.072	0.012	587.56	38.55
81	97	PART	0.9871	65.84	2.33	1.157	0.145	0.185	0.017	1222.20	27.43
82	98	PART	0.8922	70.17	5.37	0.014	0.622	0.199	0.032	1062.46	99.08
83	99	PART	0.9577	73.00	4.71	0.329	0.349	0.132	0.015	914.57	45.40
84	100	PART	0.9225	60.46	4.81	0.886	0.122	0.090	0.022	613.87	27.66
85	101	PART	0.9652	68.29	3.89	0.362	0.177	0.106	0.013	648.73	29.07
86	102	PART	0.9683	70.00	3.56	0.372	0.293	0.169	0.018	1029.00	45.17
87	104	PART	0.9692	71.71	4.58	0.393	0.277	0.136	0.017	916.64	37.11
88	105	PART	0.7526	73.00	14.83	0.520	0.296	0.037	0.013	415.49	34.32
89	106	PART	0.9516	71.84	5.97	0.533	0.211	0.080	0.013	654.03	27.87
90	107	PART	0.9204	71.00	6.33	0.283	0.205	0.068	0.012	476.66	30.45
91	108	PART	0.8989	64.00	4.81	0.215	0.102	0.055	0.011	293.24	21.54
92	109	PART	0.8938	53.82	5.09	0.789	0.129	0.126	0.044	556.80	36.17
93	110	PART	0.9760	72.00	3.20	0.549	0.241	0.147	0.013	1048.14	35.61
94	111	PART	0.9840	61.00	1.92	0.869	0.074	0.118	0.011	712.47	16.75
95	112	PART	0.9686	73.77	4.19	0.799	0.408	0.177	0.018	1398.24	52.51
96	113	PART	0.9817	72.12	2.79	0.404	0.358	0.249	0.019	1591.94	52.08
97	114	PART	0.9754	69.24	3.21	0.127	0.205	0.137	0.014	743.65	32.43
98	115	PART	0.9863	73.56	2.87	0.221	0.157	0.102	0.007	714.69	19.45
99	116	PART	0.9766	72.31	3.18	-0.118	0.216	0.131	0.011	722.36	31.54
100	117	PART	0.9703	60.48	1.94	0.427	0.123	0.164	0.017	687.51	29.46
101	118	PART	0.8088	81.00	37.23	-0.184	3.702	0.115	0.026	903.37	112.68
102	119	PART	0.8794	88.00	-9.00	-0.429	0.367	0.092	0.011	841.93	55.95
103	120	PART	0.9371	59.98	3.90	0.627	0.181	0.157	0.032	725.48	43.23
104	121	PART	0.9690	61.31	2.69	0.081	0.061	0.069	0.009	263.22	13.88
105	123	PART	0.8529	76.27	12.05	-0.019	0.451	0.059	0.013	400.78	40.82
106	124	PART	0.9737	64.42	2.64	-0.036	0.129	0.132	0.015	516.01	27.01
107	125	PART	0.7006	80.00	35.51	0.234	1.306	0.045	0.014	452.80	54.41
108	126	PART	0.9626	65.73	4.08	0.323	0.114	0.085	0.014	485.57	21.44
109	127	PART	0.8638	77.00	12.77	0.041	0.457	0.055	0.011	405.10	36.53
110	128	PART	0.9616	69.79	4.37	0.021	0.436	0.216	0.028	1139.80	65.58
111	129	PART	0.9579	72.00	4.74	0.836	0.156	0.067	0.008	691.99	21.21
112	130	PART	0.9890	67.00	1.87	0.622	0.068	0.084	0.006	613.25	12.31
113	131	PART	0.9516	71.20	5.24	0.303	0.337	0.139	0.020	885.08	47.66
114	132	PART	0.9471	66.74	4.43	0.529	0.195	0.114	0.019	708.85	36.31

PRISM Output
Participant
Post-Treatment
Paducah Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	133	PART	0.9626	51.64	2.66	0.123	0.086	0.195	0.042	402.73	28.65
116	134	PART	0.9807	71.00	2.99	0.498	0.179	0.126	0.011	876.30	26.94
117	135	PART	0.9924	66.58	1.69	0.042	0.067	0.120	0.008	552.84	13.42
118	136	PART	0.9798	60.84	2.28	-0.018	0.102	0.169	0.020	551.67	25.16
119	137	PART	0.7536	84.00	107.26	-0.435	7.816	0.075	0.016	550.07	95.30
120	138	PART	0.9556	72.21	4.49	0.774	0.286	0.124	0.015	1004.06	42.18
121	139	PART	0.9665	69.52	4.19	0.450	0.276	0.146	0.018	917.16	40.76
122	140	PART	0.8464	72.00	8.60	0.518	0.229	0.052	0.013	489.09	33.75
123	141	PART	0.9496	54.98	4.04	0.251	0.122	0.160	0.042	462.29	32.80
124	142	PART	0.9781	75.43	3.99	1.419	0.236	0.100	0.008	1186.33	24.96
125	143	PART	0.9775	68.33	3.34	0.790	0.203	0.147	0.016	1007.04	32.29
126	144	PART	0.9554	71.00	5.58	0.005	0.148	0.059	0.009	325.95	19.17
127	145	PART	0.9944	56.00	1.27	1.023	0.054	0.201	0.016	870.52	13.57
128	146	PART	0.9950	66.40	1.45	0.196	0.063	0.118	0.006	598.63	11.31
129	147	PART	0.9901	60.00	1.59	0.240	0.116	0.253	0.021	885.39	26.21
130	148	PART	0.9095	64.95	5.57	1.260	0.220	0.113	0.026	925.92	45.81
131	149	PART	0.8102	84.00	90.49	0.101	14.734	0.168	0.030	1621.28	179.58
132	150	PART	0.9867	63.21	1.88	0.663	0.098	0.153	0.013	819.46	21.12
133	151	PART	0.9465	69.62	4.72	0.353	0.164	0.074	0.011	515.09	26.38
134	152	PART	0.9865	62.32	1.90	0.718	0.212	0.346	0.031	1506.82	46.79
135	153	PART	0.9638	70.85	4.41	1.102	0.163	0.081	0.010	846.95	24.12
136	154	PART	0.9918	62.35	1.80	0.447	0.196	0.401	0.034	1609.45	41.78
137	155	PART	0.9894	66.79	1.90	0.146	0.107	0.147	0.011	717.52	20.44
138	156	PART	0.9455	53.57	3.10	0.615	0.185	0.298	0.067	850.87	54.82
139	157	PART	0.9945	69.05	1.67	0.598	0.065	0.087	0.004	658.41	9.75
140	158	PART	0.8700	75.77	10.03	0.303	0.267	0.045	0.010	417.85	28.72
141	159	PART	0.7285	70.88	9.98	0.330	0.341	0.061	0.018	453.23	54.34
142	160	PART	0.9696	66.17	3.19	0.716	0.162	0.128	0.015	822.09	30.09
143	161	PART	0.9850	61.46	1.92	0.641	0.077	0.125	0.012	664.26	17.53
144	162	PART	0.8991	77.68	9.86	0.482	0.597	0.094	0.016	866.73	52.68
145	163	PART	0.9741	72.28	3.97	0.268	0.221	0.116	0.012	777.83	28.64
146	165	PART	0.9762	69.50	3.27	0.306	0.146	0.097	0.010	611.22	22.87
147	166	PART	0.9602	45.00	3.24	0.224	0.043	0.163	0.064	255.25	24.48
148	1080	PART	0.9749	66.30	2.84	0.105	0.107	0.097	0.011	466.98	20.32

PRISM Output
Participant
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	1	PART	0.9423	62.00	4.28	0.190	0.426	0.294	0.048	1130.96	86.38
2	4	PART	0.8970	57.88	7.47	0.322	0.542	0.339	0.118	1077.18	128.25
3	7	PART	0.9264	56.78	6.30	1.063	0.334	0.268	0.081	1093.50	78.45
4	8	PART	0.9790	62.16	2.99	0.612	0.137	0.161	0.019	808.23	29.78
5	9	PART	0.9859	66.60	2.30	0.326	0.236	0.261	0.020	1319.77	46.02
6	10	PART	0.9834	64.00	2.69	0.093	0.151	0.175	0.018	739.27	30.87
7	11	PART	0.8315	58.83	9.02	0.549	0.768	0.344	0.137	1233.14	177.73
8	12	PART	0.9603	59.95	4.76	0.929	0.355	0.318	0.063	1358.39	78.49
9	13	PART	0.9093	41.85	4.17	0.203	0.463	0.937	0.308	803.49	121.37
10	14	PART	0.9936	61.26	1.88	0.357	0.060	0.128	0.010	573.16	12.91
11	15	PART	0.9900	57.28	2.15	0.020	0.075	0.152	0.015	421.04	18.19
12	17	PART	0.9891	54.13	2.03	0.452	0.045	0.115	0.013	418.53	10.62
13	18	PART	0.9538	61.00	4.64	0.241	0.171	0.135	0.025	549.28	37.67
14	20	PART	0.9922	57.78	1.81	1.099	0.076	0.183	0.015	914.61	17.67
15	21	PART	0.9885	58.59	2.45	-0.073	0.143	0.271	0.030	774.23	33.97
16	22	PART	0.9886	60.00	2.33	0.354	0.126	0.218	0.022	832.31	28.21
17	24	PART	0.9944	56.09	1.43	0.268	0.068	0.215	0.015	639.10	16.29
18	26	PART	0.9842	61.52	2.94	0.612	0.133	0.179	0.021	852.08	28.79
19	29	PART	0.9955	57.89	1.56	0.942	0.080	0.251	0.018	1055.45	18.88
20	31	PART	0.9949	65.31	1.31	0.340	0.129	0.250	0.012	1200.68	25.54
21	32	PART	0.9807	63.57	2.61	0.342	0.141	0.163	0.016	764.45	28.40
22	40	PART	0.9803	65.90	2.76	1.508	0.248	0.238	0.023	1606.17	49.46
23	41	PART	0.9827	50.00	2.56	0.166	0.062	0.182	0.030	356.40	16.64
24	42	PART	0.8842	54.00	5.21	-0.085	0.227	0.185	0.053	373.00	57.51
25	44	PART	0.9836	63.88	2.71	0.437	0.146	0.173	0.017	850.73	30.99
26	45	PART	0.9988	64.17	0.71	0.910	0.097	0.405	0.011	1975.76	19.82
27	46	PART	0.9945	57.64	1.66	0.121	0.087	0.241	0.018	714.54	21.90
28	55	PART	0.9912	65.59	1.78	0.527	0.166	0.245	0.015	1262.29	33.31
29	56	PART	0.9944	64.00	1.53	0.075	0.061	0.120	0.007	509.74	12.43
30	57	PART	0.9533	61.30	4.24	0.005	0.150	0.123	0.021	428.11	31.51
31	58	PART	0.9594	55.00	3.68	0.925	0.283	0.352	0.066	1161.39	63.56
32	68	PART	0.9747	60.85	3.95	0.020	0.160	0.174	0.028	596.48	35.03
33	70	PART	0.9933	57.26	1.48	0.401	0.039	0.103	0.007	426.90	9.10
34	71	PART	0.9906	63.00	2.10	-0.004	0.138	0.259	0.022	984.75	33.05
35	73	PART	0.8709	70.49	8.02	0.363	0.379	0.103	0.024	702.14	65.18
36	74	PART	0.9980	59.52	0.91	0.523	0.062	0.271	0.011	1037.90	14.26
37	76	PART	0.9796	55.00	2.73	0.374	0.101	0.172	0.024	539.33	23.70
38	82	PART	0.9790	62.16	2.99	0.612	0.137	0.161	0.019	808.23	29.78

PRISM Output
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
39	86	PART	0.9888	53.69	1.66	1.236	0.104	0.263	0.024	1013.85	25.09
40	88	PART	0.9744	60.67	4.03	0.569	0.290	0.317	0.052	1267.58	64.38
41	90	PART	0.9034	60.00	6.80	0.029	0.244	0.158	0.047	520.02	58.77
42	91	PART	0.9733	63.00	3.29	0.277	0.197	0.187	0.023	815.10	41.62
43	92	PART	0.9585	53.36	4.61	0.449	0.316	0.390	0.095	978.49	80.23
44	93	PART	0.9964	62.00	1.15	-0.007	0.056	0.187	0.009	672.60	13.27
45	94	PART	0.9846	60.62	2.78	0.580	0.078	0.112	0.013	584.00	17.11
46	95	PART	0.9943	69.47	1.67	0.456	0.094	0.137	0.007	889.05	16.54
47	97	PART	0.9977	61.23	1.13	0.978	0.097	0.347	0.016	1557.72	21.08
48	98	PART	0.9745	65.54	2.93	0.265	0.307	0.261	0.027	1234.15	60.87
49	99	PART	0.9958	61.83	1.54	0.648	0.102	0.265	0.016	1183.07	22.29
50	100	PART	0.9957	58.31	1.49	0.617	0.051	0.164	0.011	701.72	12.17
51	101	PART	0.9263	58.11	5.32	0.847	0.388	0.289	0.070	1139.03	90.13
52	102	PART	0.9893	64.38	2.07	0.073	0.197	0.313	0.024	1311.65	44.11
53	103	PART	0.9818	51.66	2.70	0.868	0.131	0.311	0.051	891.25	33.45
54	106	PART	0.9799	55.47	3.01	1.136	0.162	0.273	0.042	1074.84	37.67
55	107	PART	0.9895	62.63	2.16	0.286	0.116	0.185	0.015	797.25	25.14
56	108	PART	0.9748	62.98	3.64	0.158	0.109	0.109	0.015	474.59	24.01
57	109	PART	0.9502	52.00	4.38	0.731	0.231	0.308	0.081	848.15	57.45
58	110	PART	0.9946	64.41	1.49	0.690	0.145	0.292	0.016	1453.02	29.49
59	111	PART	0.9893	58.66	2.12	0.629	0.079	0.156	0.015	694.57	18.59
60	112	PART	0.9744	65.55	3.30	1.751	0.260	0.215	0.024	1577.24	49.32
61	113	PART	0.9850	66.80	2.40	0.430	0.349	0.364	0.029	1847.32	67.26
62	114	PART	0.9926	62.93	1.85	0.074	0.131	0.247	0.017	964.11	28.14
63	115	PART	0.9935	68.28	1.62	0.252	0.089	0.129	0.007	738.03	16.32
64	116	PART	0.9898	66.16	2.16	0.002	0.147	0.185	0.013	833.74	26.94
65	118	PART	0.9870	67.52	2.56	0.455	0.239	0.251	0.021	1375.03	43.09
66	119	PART	0.9862	67.92	2.54	0.962	0.230	0.235	0.019	1506.42	42.09
67	121	PART	0.9977	57.24	1.01	0.184	0.032	0.147	0.007	466.36	7.54
68	122	PART	0.8575	64.86	8.85	0.850	0.316	0.115	0.038	796.33	64.51
69	123	PART	0.9829	58.00	2.75	-0.059	0.117	0.189	0.024	517.03	27.86
70	124	PART	0.9957	58.81	1.28	-0.018	0.078	0.240	0.014	712.66	18.09
71	125	PART	0.9784	56.00	2.98	0.620	0.108	0.171	0.025	653.76	25.36
72	126	PART	0.9757	58.21	2.94	0.377	0.117	0.153	0.020	579.94	27.70
73	127	PART	0.9893	63.50	2.18	0.029	0.135	0.205	0.017	814.91	28.66
74	129	PART	0.9699	57.29	3.69	0.985	0.146	0.181	0.032	851.76	34.58
75	130	PART	0.9589	60.37	4.76	0.703	0.183	0.156	0.031	769.79	39.88
76	132	PART	0.9543	65.93	4.12	0.550	0.281	0.176	0.025	985.49	56.11

PRISM Output
Participant
Pre-Treatment
Bowling Green Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
77	134	PART	0.9858	59.39	2.53	0.939	0.154	0.249	0.028	1117.16	35.09
78	135	PART	0.9342	53.57	4.36	0.051	0.319	0.339	0.082	737.12	72.88
79	136	PART	0.8354	54.00	7.40	-0.072	0.328	0.191	0.082	391.61	76.41
80	137	PART	0.9566	67.55	3.89	0.190	0.344	0.210	0.028	1081.74	67.20
81	140	PART	0.9719	60.71	3.71	0.724	0.134	0.138	0.021	729.26	29.37
82	142	PART	0.9727	57.06	3.44	1.922	0.171	0.219	0.035	1290.73	39.83
83	145	PART	0.9897	60.00	2.11	1.230	0.095	0.174	0.015	1008.12	21.09
84	146	PART	0.9683	73.85	5.58	0.149	0.311	0.096	0.010	672.36	30.61
85	147	PART	0.9968	57.40	1.13	0.291	0.053	0.206	0.011	671.18	12.58
86	148	PART	0.9709	59.92	4.04	1.138	0.163	0.172	0.029	966.32	36.12
87	150	PART	0.9743	57.54	3.47	0.646	0.189	0.246	0.039	917.43	44.20
88	151	PART	0.9943	60.69	1.85	0.668	0.052	0.119	0.009	641.07	12.38
89	152	PART	0.9815	62.99	3.01	0.507	0.273	0.313	0.035	1378.17	57.78
90	160	PART	0.9748	67.37	3.07	0.675	0.243	0.190	0.019	1155.36	46.36
91	161	PART	0.8597	65.00	6.86	0.699	0.591	0.216	0.055	1170.50	119.52
92	162	PART	0.9895	72.43	2.47	0.469	0.194	0.157	0.010	1124.47	28.00
93	163	PART	0.9848	63.35	2.50	0.415	0.149	0.190	0.018	890.94	32.14

PRISM Output
Participant
Post-Treatment
Bowling Green Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	1	PART	0.9890	60.24	1.66	0.702	0.086	0.179	0.016	840.47	20.79
2	2	PART	0.9773	60.44	2.22	0.351	0.070	0.102	0.012	466.50	16.49
3	3	PART	0.9865	62.32	1.86	0.360	0.084	0.147	0.014	671.73	19.05
4	4	PART	0.7385	76.08	16.61	0.038	0.798	0.071	0.021	520.76	67.46
5	6	PART	0.9913	58.77	1.17	0.695	0.096	0.286	0.020	1110.37	25.04
6	7	PART	0.9556	67.62	4.95	0.220	0.293	0.153	0.025	820.58	44.90
7	8	PART	0.9891	58.00	1.57	0.583	0.057	0.136	0.013	601.43	13.78
8	9	PART	0.9835	65.18	2.06	0.245	0.178	0.219	0.019	1027.72	35.21
9	10	PART	0.9261	69.11	4.13	0.118	0.168	0.080	0.012	459.02	29.64
10	11	PART	0.9957	61.07	0.98	0.340	0.085	0.275	0.014	1065.20	19.26
11	12	PART	0.9914	56.78	1.07	0.938	0.111	0.340	0.023	1238.62	28.73
12	13	PART	0.9910	60.44	1.49	0.121	0.113	0.259	0.021	901.02	26.20
13	14	PART	0.9819	58.37	1.78	0.367	0.061	0.113	0.012	463.19	15.01
14	15	PART	0.9208	58.82	4.20	0.236	0.196	0.167	0.040	587.02	46.57
15	16	PART	0.9458	48.00	2.78	0.077	0.057	0.154	0.047	240.76	22.84
16	17	PART	0.9615	49.00	2.56	0.452	0.047	0.141	0.039	376.23	20.26
17	18	PART	0.9939	57.76	0.96	0.318	0.029	0.099	0.006	394.09	7.33
18	19	PART	0.7568	18.00	-9.00	0.188	0.188	8.118	1.455	368.27	74.03
19	20	PART	0.9910	59.40	1.45	0.668	0.050	0.123	0.010	627.08	11.97
20	21	PART	0.9768	62.89	2.77	-0.032	0.101	0.139	0.018	513.45	23.10
21	22	PART	0.9900	60.63	1.44	0.195	0.064	0.139	0.011	536.18	15.07
22	24	PART	0.9942	57.16	0.97	0.320	0.041	0.147	0.009	513.49	10.28
23	25	PART	0.9900	58.93	1.36	0.719	0.077	0.190	0.015	837.39	19.23
24	26	PART	0.9769	57.61	2.12	0.621	0.052	0.091	0.012	480.86	12.80
25	27	PART	0.9704	58.67	2.51	-0.018	0.065	0.093	0.013	268.96	15.55
26	29	PART	0.9712	57.13	2.04	0.993	0.102	0.166	0.022	810.79	26.05
27	30	PART	0.9980	62.68	0.74	0.053	0.050	0.228	0.009	874.93	11.53
28	31	PART	0.9763	62.00	2.45	0.309	0.115	0.154	0.019	668.44	25.99
29	32	PART	0.9919	69.05	1.55	0.436	0.062	0.092	0.005	638.73	11.33
30	33	PART	0.9885	63.00	1.84	0.028	0.062	0.107	0.009	418.91	13.20
31	34	PART	0.7699	48.00	6.15	0.735	0.262	0.314	0.211	700.96	104.71
32	35	PART	0.9819	24.05	-9.00	0.160	0.056	6.430	0.276	661.66	27.99
33	36	PART	0.9838	60.06	1.76	-0.019	0.123	0.221	0.022	707.88	29.27
34	38	PART	0.9944	60.36	1.16	0.891	0.092	0.271	0.017	1216.18	21.40
35	39	PART	0.9883	57.61	1.63	0.472	0.074	0.179	0.018	669.44	18.60
36	40	PART	0.9774	63.31	2.63	1.434	0.145	0.180	0.023	1223.24	31.57
37	41	PART	0.9938	65.60	1.49	0.139	0.094	0.175	0.011	818.11	17.73
38	43	PART	0.9873	65.88	2.09	0.023	0.092	0.123	0.010	551.98	17.72

PRISM Output
Participant
Post-Treatment
Bowling Green Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	44	PART	0.9683	63.87	3.17	0.325	0.084	0.085	0.013	458.24	18.17
40	45	PART	0.9508	62.31	3.68	0.872	0.232	0.207	0.039	1079.66	52.08
41	46	PART	0.9700	56.07	2.18	0.125	0.085	0.138	0.020	393.40	21.63
42	47	PART	0.9404	46.00	2.11	0.492	0.088	0.284	0.075	509.31	39.61
43	48	PART	0.9806	60.07	2.21	0.358	0.066	0.106	0.013	474.22	15.21
44	49	PART	0.9673	59.15	2.45	0.418	0.108	0.145	0.021	596.68	26.58
45	50	PART	0.9469	59.72	3.38	0.897	0.168	0.170	0.032	866.20	39.65
46	52	PART	0.9782	69.19	3.07	-0.126	0.258	0.188	0.018	936.86	38.96
47	53	PART	0.9006	56.49	3.76	0.414	0.119	0.102	0.025	414.52	30.80
48	54	PART	0.8477	50.00	5.25	0.103	0.282	0.366	0.168	631.33	93.84
49	55	PART	0.9915	68.58	1.79	0.244	0.151	0.195	0.012	1079.05	24.86
50	56	PART	0.9495	67.00	4.17	0.107	0.125	0.070	0.011	367.57	21.23
51	57	PART	0.9955	62.37	1.11	0.165	0.034	0.101	0.006	433.78	7.58
52	58	PART	0.8887	60.46	5.48	0.548	0.281	0.176	0.052	781.70	65.45
53	59	PART	0.9722	62.26	2.80	0.564	0.125	0.150	0.021	754.92	28.10
54	60	PART	0.9758	68.63	3.76	0.181	0.176	0.117	0.014	659.24	25.98
55	61	PART	0.9915	53.57	1.59	0.093	0.053	0.210	0.025	478.47	15.31
56	64	PART	0.9696	64.03	2.77	0.573	0.166	0.161	0.020	860.09	34.13
57	65	PART	0.9716	67.02	2.91	-0.038	0.164	0.128	0.014	586.24	29.44
58	66	PART	0.9645	64.66	3.40	0.198	0.191	0.160	0.023	738.57	38.37
59	67	PART	0.9900	65.74	1.74	0.001	0.125	0.194	0.014	852.83	24.56
60	68	PART	0.9698	58.62	2.33	0.368	0.125	0.175	0.024	653.10	30.54
61	70	PART	0.9819	56.22	1.70	0.384	0.050	0.108	0.012	414.02	12.44
62	71	PART	0.8351	69.48	9.00	-0.072	0.514	0.129	0.037	654.71	78.89
63	72	PART	0.9745	58.63	2.65	0.146	0.074	0.110	0.017	380.58	18.19
64	73	PART	0.9886	64.08	1.72	0.344	0.110	0.171	0.013	815.62	22.12
65	74	PART	0.9590	63.00	3.31	0.512	0.113	0.106	0.017	589.54	24.76
66	75	PART	0.9572	65.52	3.89	0.023	0.149	0.104	0.016	461.99	28.03
67	76	PART	0.9969	58.34	0.72	0.232	0.033	0.149	0.006	517.28	8.12
68	77	PART	0.9886	50.72	2.59	-0.012	0.081	0.181	0.042	305.70	25.02
69	82	PART	0.9845	59.49	1.71	0.569	0.066	0.127	0.012	602.93	16.03
70	83	PART	0.9865	64.44	1.89	0.548	0.215	0.312	0.026	1485.90	45.14
71	84	PART	0.9325	59.33	3.44	0.458	0.188	0.172	0.035	700.45	46.29
72	85	PART	0.9955	67.38	1.36	-0.018	0.042	0.076	0.004	358.56	6.96
73	86	PART	0.7824	72.21	11.76	0.762	0.283	0.051	0.018	583.27	40.98
74	87	PART	0.9553	69.00	4.13	0.388	0.229	0.121	0.016	766.98	36.59
75	88	PART	0.9696	62.07	3.14	0.479	0.223	0.255	0.040	1099.72	49.74
76	89	PART	0.9880	68.00	1.95	1.221	0.077	0.088	0.006	881.05	13.13

PRISM Output
Participant
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	90	PART	0.9716	64.39	2.74	-0.008	0.149	0.144	0.017	589.78	30.81
78	92	PART	0.9375	60.65	3.88	0.835	0.128	0.108	0.022	666.12	29.73
79	93	PART	0.9840	54.30	1.92	0.615	0.065	0.176	0.024	617.03	17.48
80	94	PART	0.9889	69.66	2.15	0.400	0.069	0.073	0.005	537.74	10.96
81	95	PART	0.9193	74.91	6.82	0.238	0.302	0.077	0.012	606.86	35.95
82	97	PART	0.9910	63.18	1.69	1.226	0.110	0.210	0.016	1257.81	22.95
83	98	PART	0.8750	67.00	4.97	0.183	0.591	0.221	0.040	1105.32	106.53
84	99	PART	0.9627	71.19	4.13	0.361	0.283	0.141	0.017	940.95	41.34
85	100	PART	0.9097	59.46	4.75	0.893	0.129	0.097	0.025	627.08	30.40
86	101	PART	0.9741	65.55	2.90	0.410	0.131	0.119	0.014	670.24	25.06
87	102	PART	0.9792	66.67	2.41	0.463	0.198	0.194	0.018	1066.23	37.16
88	104	PART	0.9771	68.98	3.67	0.464	0.218	0.150	0.018	945.18	32.59
89	105	PART	0.7603	73.00	14.61	0.504	0.297	0.038	0.013	422.56	32.65
90	106	PART	0.9630	69.00	4.32	0.583	0.165	0.089	0.012	671.20	24.25
91	107	PART	0.9312	68.90	5.46	0.305	0.172	0.074	0.013	490.20	28.64
92	108	PART	0.9038	61.12	4.00	0.225	0.089	0.064	0.014	302.47	21.12
93	109	PART	0.9236	51.89	4.77	0.793	0.104	0.154	0.059	579.19	33.46
94	110	PART	0.9832	69.68	2.53	0.616	0.183	0.160	0.013	1078.06	29.80
95	111	PART	0.9894	59.69	1.42	0.867	0.059	0.131	0.010	730.64	14.01
96	112	PART	0.9811	72.03	3.02	0.844	0.279	0.189	0.016	1435.50	39.20
97	113	PART	0.9806	69.78	2.69	0.500	0.332	0.270	0.024	1634.60	53.62
98	114	PART	0.9792	66.94	2.67	0.180	0.164	0.151	0.015	770.04	29.88
99	115	PART	0.9932	71.87	1.97	0.244	0.098	0.109	0.006	733.95	13.24
100	116	PART	0.9837	70.13	2.57	-0.071	0.176	0.142	0.011	751.35	26.41
101	117	PART	0.9823	58.67	1.30	0.431	0.095	0.188	0.015	716.57	23.54
102	118	PART	0.8229	81.00	39.33	-0.296	4.154	0.120	0.025	934.94	95.51
103	119	PART	0.8993	88.00	-9.00	-0.570	0.346	0.096	0.010	870.07	50.97
104	120	PART	0.9436	58.58	3.38	0.629	0.172	0.176	0.035	750.38	42.84
105	121	PART	0.9824	59.57	1.81	0.077	0.045	0.078	0.008	274.36	10.74
106	123	PART	0.8654	74.00	9.92	0.016	0.361	0.063	0.014	415.20	38.61
107	124	PART	0.9798	62.51	2.30	-0.036	0.105	0.149	0.017	539.50	23.78
108	125	PART	0.7327	74.00	15.19	0.362	0.451	0.051	0.017	466.93	48.32
109	126	PART	0.9767	63.00	2.75	0.347	0.081	0.099	0.013	504.18	17.06
110	127	PART	0.8692	74.00	9.75	0.101	0.331	0.059	0.013	419.15	35.46
111	128	PART	0.9620	67.26	3.78	0.129	0.381	0.238	0.032	1176.30	63.55
112	129	PART	0.9450	70.63	5.64	0.853	0.179	0.071	0.011	706.01	24.36
113	130	PART	0.9944	64.26	1.18	0.645	0.043	0.097	0.005	630.42	8.88
114	131	PART	0.9430	69.15	5.01	0.364	0.334	0.150	0.024	912.00	51.59

PRISM Output
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	132	PART	0.9712	63.82	3.12	0.560	0.126	0.132	0.019	730.67	26.89
116	133	PART	0.9552	51.00	2.33	0.128	0.093	0.216	0.044	425.11	30.64
117	134	PART	0.9867	68.70	2.26	0.548	0.134	0.138	0.011	901.39	22.62
118	135	PART	0.9904	63.42	1.67	0.092	0.066	0.140	0.011	577.73	15.24
119	136	PART	0.9811	58.85	2.12	-0.003	0.099	0.194	0.024	582.08	25.61
120	137	PART	0.7895	83.00	146.79	-0.487	11.321	0.080	0.017	570.81	95.80
121	138	PART	0.9693	69.81	3.50	0.818	0.214	0.136	0.015	1028.88	35.11
122	139	PART	0.9573	67.82	4.33	0.492	0.272	0.155	0.023	939.62	44.89
123	140	PART	0.8701	69.00	6.99	0.538	0.190	0.059	0.014	500.87	31.16
124	141	PART	0.9657	57.00	2.59	0.210	0.106	0.149	0.024	473.76	26.57
125	142	PART	0.9817	72.67	2.99	1.495	0.156	0.108	0.009	1210.65	22.14
126	143	PART	0.9839	65.34	2.37	0.861	0.144	0.168	0.016	1038.31	27.27
127	144	PART	0.9686	68.47	4.21	0.033	0.111	0.065	0.009	337.85	16.29
128	145	PART	0.9795	55.31	2.06	1.043	0.104	0.217	0.030	899.64	27.33
129	146	PART	0.9916	64.90	1.66	0.217	0.075	0.128	0.009	619.64	14.83
130	147	PART	0.9911	59.63	1.44	0.235	0.110	0.265	0.020	920.30	25.16
131	148	PART	0.9231	61.33	4.14	1.291	0.185	0.138	0.030	950.62	42.48
132	149	PART	0.8409	78.25	17.65	0.705	2.351	0.182	0.040	1674.99	131.65
133	150	PART	0.9912	61.01	1.31	0.669	0.076	0.177	0.012	846.73	17.49
134	151	PART	0.9491	67.28	4.18	0.386	0.145	0.082	0.013	531.61	25.41
135	152	PART	0.9938	59.90	1.14	0.742	0.139	0.407	0.026	1572.47	33.25
136	153	PART	0.9720	67.41	3.40	1.160	0.127	0.092	0.011	865.69	21.27
137	154	PART	0.9875	60.06	1.81	0.536	0.233	0.460	0.045	1681.51	53.65
138	155	PART	0.9717	65.46	2.81	0.159	0.170	0.158	0.019	742.15	33.60
139	156	PART	0.9206	50.76	3.70	0.664	0.211	0.387	0.132	908.65	78.36
140	157	PART	0.9939	66.79	1.54	0.629	0.057	0.096	0.005	675.39	10.21
141	158	PART	0.8982	73.00	7.56	0.331	0.203	0.049	0.010	427.81	24.94
142	159	PART	0.7392	63.00	7.03	0.471	0.231	0.081	0.028	479.14	52.44
143	160	PART	0.9850	63.41	2.12	0.739	0.099	0.148	0.015	845.83	21.15
144	161	PART	0.9938	59.88	1.12	0.634	0.048	0.142	0.009	684.74	11.58
145	162	PART	0.9222	74.52	6.20	0.571	0.371	0.102	0.016	889.67	45.86
146	163	PART	0.9883	70.52	2.73	0.299	0.149	0.124	0.010	800.88	19.36
147	165	PART	0.9813	67.48	2.68	0.335	0.116	0.106	0.010	629.34	19.98
148	166	PART	0.9441	47.86	3.33	0.201	0.051	0.128	0.043	247.50	22.27
149	1080	PART	0.9850	64.00	2.07	0.130	0.080	0.109	0.010	486.13	16.23

PRISM Output
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	38	PART	0.9970	67.00	1.29	0.356	0.111	0.222	0.008	1186.95	19.65
2	39	PART	0.9979	60.72	1.13	0.473	0.048	0.168	0.007	751.68	10.34
3	96	PART	0.9272	47.00	3.56	0.798	0.436	0.634	0.157	1138.92	111.67
4	117	PART	0.9465	65.76	5.47	0.843	0.180	0.089	0.014	707.61	33.32
5	143	PART	0.9777	65.94	3.12	1.290	0.249	0.220	0.021	1463.93	44.77
6	158	PART	0.9988	62.90	0.79	0.590	0.029	0.119	0.003	675.96	6.24

PRISM Output
Participant
Post-Treatment
Louisville Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	1	PART	0.9859	62.40	2.20	0.696	0.100	0.157	0.017	844.74	23.17
2	2	PART	0.9719	62.28	2.62	0.351	0.078	0.092	0.012	471.70	18.00
3	3	PART	0.9865	64.18	1.78	0.346	0.092	0.133	0.011	678.57	19.59
4	4	PART	0.7239	78.96	23.57	-0.056	1.157	0.068	0.021	521.96	70.86
5	6	PART	0.9919	59.71	1.31	0.706	0.092	0.267	0.020	1125.68	23.81
6	7	PART	0.9606	68.77	4.71	0.200	0.280	0.146	0.021	830.08	43.01
7	8	PART	0.9870	59.40	1.97	0.578	0.063	0.124	0.013	607.88	14.88
8	9	PART	0.9804	66.60	2.30	0.222	0.195	0.205	0.019	1039.15	38.93
9	10	PART	0.9176	70.54	4.52	0.103	0.172	0.076	0.012	462.98	31.10
10	11	PART	0.9970	63.12	0.89	0.329	0.078	0.245	0.010	1080.47	16.61
11	12	PART	0.9959	57.36	0.90	0.949	0.076	0.321	0.017	1252.03	19.29
12	13	PART	0.9922	62.96	1.65	0.094	0.108	0.226	0.017	912.12	24.10
13	14	PART	0.9820	60.03	2.04	0.361	0.061	0.101	0.011	467.01	14.41
14	15	PART	0.9229	61.00	4.46	0.228	0.195	0.147	0.033	595.12	43.74
15	16	PART	0.9655	47.98	2.19	0.076	0.045	0.152	0.035	247.46	19.59
16	17	PART	0.9770	47.00	1.67	0.463	0.036	0.169	0.034	395.32	17.90
17	18	PART	0.9953	58.36	0.98	0.322	0.026	0.094	0.005	399.32	6.43
18	19	PART	0.7625	37.00	4.34	0.062	0.221	0.639	0.305	335.52	74.68
19	20	PART	0.9915	61.36	1.58	0.660	0.049	0.110	0.009	631.59	11.29
20	21	PART	0.9844	63.35	2.22	-0.029	0.104	0.135	0.012	523.71	20.42
21	22	PART	0.9949	62.00	1.10	0.196	0.047	0.128	0.007	544.68	10.60
22	24	PART	0.9973	58.66	0.84	0.314	0.029	0.132	0.006	518.34	6.94
23	25	PART	0.9919	60.05	1.38	0.719	0.069	0.177	0.013	846.95	16.79
24	26	PART	0.9770	59.00	2.27	0.614	0.053	0.083	0.011	483.73	12.66
25	27	PART	0.9692	59.28	2.67	-0.016	0.067	0.088	0.013	273.67	15.79
26	29	PART	0.9779	59.00	2.16	0.977	0.091	0.147	0.018	814.44	22.35
27	30	PART	0.9979	64.33	0.73	0.038	0.057	0.210	0.007	889.05	12.36
28	31	PART	0.9806	63.55	2.26	0.305	0.115	0.141	0.014	677.44	24.74
29	32	PART	0.9893	70.00	1.77	0.431	0.073	0.089	0.005	644.15	13.16
30	33	PART	0.9906	64.26	1.51	0.021	0.057	0.101	0.007	426.55	12.20
31	34	PART	0.8205	47.00	4.57	0.725	0.231	0.350	0.190	732.70	104.01
32	35	PART	0.9819	24.00	-9.00	0.160	0.056	4.507	0.194	496.31	23.44
33	36	PART	0.9909	61.00	1.37	-0.011	0.090	0.208	0.015	723.08	21.40
34	38	PART	0.9940	62.53	1.39	0.880	0.097	0.239	0.016	1229.14	21.85
35	39	PART	0.9902	59.23	1.62	0.470	0.069	0.160	0.014	675.13	16.54
36	40	PART	0.9755	64.88	2.82	1.410	0.165	0.168	0.020	1233.46	34.38
37	41	PART	0.9927	67.39	1.71	0.107	0.110	0.162	0.010	825.34	19.31
38	43	PART	0.9840	67.09	2.48	0.003	0.114	0.116	0.011	557.42	20.22

PRISM Output
Participant
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OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	44	PART	0.9633	65.26	3.08	0.318	0.098	0.079	0.010	462.00	19.91
40	45	PART	0.9483	64.04	3.78	0.851	0.268	0.190	0.031	1092.02	55.60
41	46	PART	0.9697	59.00	2.94	0.097	0.088	0.114	0.019	391.35	20.75
42	47	PART	0.9496	47.00	1.86	0.490	0.080	0.245	0.054	506.36	33.57
43	48	PART	0.9867	61.55	2.16	0.347	0.053	0.098	0.011	480.06	12.30
44	49	PART	0.9716	59.15	2.45	0.435	0.100	0.144	0.020	609.82	25.00
45	50	PART	0.9589	60.13	2.95	0.895	0.146	0.165	0.026	874.88	34.19
46	52	PART	0.9809	71.07	3.29	-0.200	0.278	0.178	0.016	948.26	36.98
47	53	PART	0.9013	55.79	4.68	0.428	0.116	0.105	0.031	423.69	31.45
48	54	PART	0.8724	52.00	4.80	0.054	0.262	0.310	0.115	630.73	81.50
49	55	PART	0.9913	70.00	1.89	0.211	0.163	0.185	0.011	1092.15	25.12
50	56	PART	0.9419	68.71	4.74	0.094	0.135	0.065	0.010	371.12	23.11
51	57	PART	0.9926	64.28	1.43	0.153	0.048	0.092	0.006	438.60	10.05
52	58	PART	0.9045	63.00	5.28	0.517	0.288	0.154	0.037	788.65	61.26
53	59	PART	0.9737	64.01	2.72	0.559	0.136	0.136	0.016	763.91	28.27
54	60	PART	0.9745	69.95	3.82	0.159	0.174	0.111	0.013	666.58	26.71
55	61	PART	0.9931	53.65	1.44	0.094	0.047	0.204	0.021	486.70	14.32
56	64	PART	0.9785	64.70	2.40	0.571	0.137	0.156	0.016	871.97	29.32
57	65	PART	0.9629	68.56	3.64	-0.052	0.193	0.120	0.015	593.76	34.18
58	66	PART	0.9650	67.19	3.76	0.139	0.216	0.144	0.019	743.70	38.18
59	67	PART	0.9906	66.80	1.69	-0.012	0.122	0.184	0.012	864.47	24.24
60	68	PART	0.9750	60.00	2.35	0.361	0.114	0.160	0.020	660.48	26.68
61	70	PART	0.9861	55.50	1.89	0.394	0.043	0.110	0.013	420.12	11.00
62	71	PART	0.8478	70.06	8.91	-0.076	0.512	0.126	0.033	663.77	76.16
63	72	PART	0.9805	60.35	2.53	0.137	0.065	0.099	0.013	384.59	15.08
64	73	PART	0.9887	65.61	1.78	0.314	0.112	0.160	0.012	825.40	22.32
65	74	PART	0.9605	65.56	3.34	0.473	0.124	0.095	0.013	592.85	25.01
66	75	PART	0.9557	66.98	3.97	0.004	0.153	0.098	0.015	467.25	29.04
67	76	PART	0.9948	59.05	1.03	0.244	0.043	0.140	0.008	525.52	10.23
68	77	PART	0.9932	52.55	2.48	-0.035	0.071	0.153	0.028	300.51	19.07
69	82	PART	0.9855	60.20	1.86	0.570	0.064	0.121	0.012	610.75	15.25
70	83	PART	0.9847	65.97	2.09	0.511	0.232	0.291	0.025	1502.00	48.58
71	84	PART	0.9349	60.40	3.98	0.462	0.186	0.160	0.034	709.86	44.95
72	85	PART	0.9943	69.06	1.54	-0.033	0.048	0.071	0.004	362.65	7.87
73	86	PART	0.7790	74.00	12.08	0.742	0.338	0.048	0.015	586.43	42.97
74	87	PART	0.9463	71.00	5.31	0.356	0.285	0.112	0.017	773.52	40.44
75	88	PART	0.9676	64.91	3.45	0.423	0.257	0.222	0.032	1106.36	52.77
76	89	PART	0.9862	69.00	2.13	1.221	0.081	0.084	0.006	886.44	14.14

PRISM Output
Participant
Post-Treatment
Louisville Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	90	PART	0.9632	66.56	3.34	-0.041	0.178	0.131	0.017	595.10	35.38
78	92	PART	0.9320	62.33	4.33	0.836	0.135	0.098	0.020	672.37	30.57
79	93	PART	0.9888	54.69	1.74	0.622	0.053	0.166	0.020	622.63	15.03
80	94	PART	0.9853	71.85	3.02	0.374	0.093	0.068	0.006	541.05	12.74
81	95	PART	0.9110	76.70	8.37	0.199	0.392	0.073	0.012	609.08	37.99
82	97	PART	0.9918	65.09	1.56	1.177	0.118	0.193	0.012	1267.22	22.44
83	98	PART	0.8667	67.29	5.77	0.214	0.598	0.216	0.045	1121.02	111.15
84	99	PART	0.9580	73.00	5.02	0.322	0.369	0.133	0.016	948.55	45.36
85	100	PART	0.9017	61.45	5.90	0.885	0.136	0.086	0.025	630.90	30.87
86	101	PART	0.9719	67.61	3.24	0.377	0.145	0.110	0.013	675.24	26.23
87	102	PART	0.9734	68.00	2.85	0.449	0.235	0.183	0.019	1076.77	41.98
88	104	PART	0.9768	70.23	3.72	0.454	0.231	0.143	0.015	954.61	32.47
89	105	PART	0.7466	73.00	15.76	0.517	0.318	0.038	0.014	425.47	34.74
90	106	PART	0.9561	70.86	5.46	0.552	0.193	0.083	0.013	676.06	26.76
91	107	PART	0.9213	70.38	6.14	0.298	0.196	0.069	0.013	494.69	30.58
92	108	PART	0.9103	62.00	4.47	0.231	0.092	0.061	0.013	308.46	21.09
93	109	PART	0.9255	52.00	4.29	0.792	0.106	0.150	0.051	584.69	33.26
94	110	PART	0.9793	71.65	3.29	0.566	0.232	0.149	0.014	1086.80	33.37
95	111	PART	0.9877	61.28	1.67	0.865	0.063	0.119	0.010	736.75	14.71
96	112	PART	0.9768	73.00	3.39	0.845	0.347	0.182	0.015	1448.01	44.86
97	113	PART	0.9851	71.87	2.89	0.391	0.337	0.254	0.021	1651.28	47.57
98	114	PART	0.9780	68.39	2.85	0.160	0.178	0.142	0.014	778.95	30.66
99	115	PART	0.9946	73.90	2.06	0.180	0.112	0.104	0.005	739.66	12.43
100	116	PART	0.9812	71.67	3.11	-0.100	0.200	0.135	0.012	758.64	28.56
101	117	PART	0.9794	59.64	1.54	0.448	0.101	0.174	0.015	725.40	25.13
102	118	PART	0.8110	82.00	64.34	-0.314	6.891	0.117	0.026	939.32	108.24
103	119	PART	0.8911	87.00	-9.00	-0.380	0.342	0.094	0.010	874.78	52.99
104	120	PART	0.9448	58.70	3.78	0.655	0.171	0.171	0.036	763.61	42.17
105	121	PART	0.9767	61.03	2.18	0.080	0.051	0.071	0.008	278.31	12.05
106	123	PART	0.8667	74.76	10.24	0.014	0.364	0.061	0.013	418.33	39.44
107	124	PART	0.9787	63.78	2.37	-0.035	0.118	0.138	0.015	547.51	25.62
108	125	PART	0.7201	80.00	35.04	0.209	1.293	0.047	0.015	466.17	49.50
109	126	PART	0.9726	65.00	2.89	0.327	0.098	0.090	0.010	507.57	18.81
110	127	PART	0.8665	76.00	11.39	0.063	0.413	0.056	0.011	420.82	36.16
111	128	PART	0.9610	68.32	3.89	0.105	0.390	0.228	0.030	1194.57	65.47
112	129	PART	0.9509	72.05	5.82	0.832	0.195	0.068	0.010	710.11	23.16
113	130	PART	0.9931	65.63	1.32	0.637	0.048	0.090	0.005	635.36	9.89
114	131	PART	0.9501	70.83	5.35	0.319	0.332	0.142	0.022	920.62	48.92

PRISM Output
Participant
Post-Treatment
Louisville Station

OBS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	132	PART	0.9699	64.99	3.07	0.551	0.138	0.125	0.016	739.60	28.57
116	133	PART	0.9605	49.36	3.05	0.152	0.087	0.241	0.069	446.39	37.26
117	134	PART	0.9847	70.08	2.55	0.533	0.153	0.130	0.010	909.64	24.20
118	135	PART	0.9934	65.34	1.31	0.068	0.059	0.128	0.007	584.49	12.78
119	136	PART	0.9776	60.56	2.53	-0.001	0.107	0.173	0.023	589.98	26.71
120	137	PART	0.7718	85.00	306.16	-0.550	23.254	0.077	0.016	573.94	100.81
121	138	PART	0.9629	71.49	4.42	0.793	0.265	0.128	0.016	1036.70	38.86
122	139	PART	0.9656	68.57	3.87	0.481	0.247	0.151	0.019	952.04	41.04
123	140	PART	0.8630	70.00	7.74	0.541	0.200	0.056	0.014	504.51	32.37
124	141	PART	0.9503	58.23	3.75	0.210	0.131	0.134	0.028	476.48	32.06
125	142	PART	0.9822	74.99	3.41	1.422	0.200	0.102	0.008	1213.80	22.65
126	143	PART	0.9843	67.60	2.56	0.811	0.153	0.153	0.014	1045.08	27.10
127	144	PART	0.9593	70.80	5.37	0.004	0.137	0.060	0.009	341.31	18.52
128	145	PART	0.9837	57.00	2.08	1.020	0.094	0.191	0.024	900.24	23.16
129	146	PART	0.9913	66.06	1.69	0.199	0.082	0.122	0.008	628.45	15.36
130	147	PART	0.9934	60.38	1.36	0.236	0.094	0.252	0.018	935.46	21.42
131	148	PART	0.9235	62.43	4.53	1.301	0.187	0.128	0.029	960.06	42.82
132	149	PART	0.8300	80.00	17.57	0.590	2.451	0.175	0.035	1679.87	135.81
133	150	PART	0.9923	62.54	1.40	0.669	0.072	0.161	0.011	856.94	16.56
134	151	PART	0.9610	68.00	3.63	0.382	0.129	0.079	0.010	536.09	22.59
135	152	PART	0.9944	61.05	1.08	0.755	0.129	0.377	0.021	1595.21	30.48
136	153	PART	0.9715	69.18	3.41	1.142	0.130	0.086	0.010	870.89	21.41
137	154	PART	0.9902	61.67	1.92	0.502	0.202	0.420	0.040	1705.31	46.27
138	155	PART	0.9778	66.21	2.44	0.156	0.152	0.152	0.015	752.80	30.27
139	156	PART	0.9231	51.00	3.64	0.669	0.210	0.370	0.121	922.85	77.32
140	157	PART	0.9948	68.11	1.47	0.620	0.056	0.090	0.004	680.17	9.36
141	158	PART	0.8902	74.00	8.04	0.327	0.224	0.048	0.009	430.58	26.49
142	159	PART	0.7338	67.39	8.69	0.398	0.288	0.068	0.022	474.42	54.15
143	160	PART	0.9798	64.99	2.51	0.725	0.124	0.137	0.014	853.73	25.56
144	161	PART	0.9915	61.27	1.37	0.636	0.056	0.130	0.009	692.55	13.26
145	162	PART	0.9189	76.00	7.81	0.528	0.495	0.099	0.015	894.14	47.32
146	163	PART	0.9846	73.00	3.50	0.218	0.216	0.116	0.009	806.83	22.82
147	165	PART	0.9771	68.97	3.09	0.320	0.131	0.099	0.010	635.36	22.43
148	166	PART	0.9540	45.00	2.63	0.222	0.045	0.168	0.054	268.97	23.52
149	1080	PART	0.9836	65.01	2.06	0.118	0.084	0.104	0.009	493.21	17.11

PRISM Output
Non-Participant
Pre-Treatment
Paducah Station

IS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	580002013800	NPART	0.9976	68.69	1.08	0.373	0.057	0.127	0.004	767.28	10.37
2	585018022900	NPART	0.9969	66.59	1.18	0.704	0.046	0.101	0.004	709.24	8.74
3	590011001500	NPART	0.9963	66.00	1.12	0.283	0.058	0.118	0.004	619.13	11.42
4	590011001605	NPART	0.9979	68.27	0.79	-0.007	0.038	0.112	0.003	542.04	8.23
5	590011007000	NPART	0.9943	67.30	1.42	0.456	0.172	0.272	0.012	1430.75	33.70
6	590017004000	NPART	0.9957	63.73	1.45	0.320	0.067	0.143	0.007	671.02	13.62

PRISM Output
 Non-Participant
 Post-Treatment
 Paducah Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	500003118400	NPART	0.9934	72.00	1.87	0.132	0.120	0.132	0.007	807.86	16.22
2	500003120800	NPART	0.9775	63.58	2.45	0.695	0.116	0.141	0.016	795.81	25.32
3	500003143201	NPART	0.9777	65.04	2.55	0.409	0.160	0.168	0.018	848.20	32.04
4	500003220641	NPART	0.9760	63.88	2.60	0.247	0.077	0.089	0.010	437.25	16.70
5	500005115602	NPART	0.9798	68.00	2.83	0.430	0.134	0.107	0.010	671.68	21.75
6	500007377900	NPART	0.7309	61.02	8.74	1.110	0.593	0.204	0.091	1086.64	134.45
7	500008129800	NPART	0.9436	75.00	6.20	1.082	0.540	0.146	0.019	1354.53	58.21
8	500009318100	NPART	0.9785	65.94	2.71	0.919	0.077	0.078	0.009	676.65	15.31
9	500010523502	NPART	0.9787	66.87	2.72	0.453	0.217	0.206	0.021	1104.35	41.61
10	500011181901	NPART	0.9951	64.91	1.22	1.111	0.086	0.200	0.010	1228.95	18.12
11	500016212601	NPART	0.9724	62.71	2.84	0.452	0.127	0.145	0.020	696.34	28.42
12	500017250901	NPART	0.9801	67.55	2.80	0.227	0.111	0.098	0.010	541.83	19.56
13	500018446600	NPART	0.9904	57.00	1.26	1.213	0.101	0.281	0.022	1182.74	25.60
14	500018477800	NPART	0.9815	69.29	2.80	0.810	0.214	0.166	0.015	1144.55	33.77
15	500018506200	NPART	0.9902	60.70	1.44	0.541	0.113	0.248	0.019	1012.86	27.04
16	500018562000	NPART	0.8329	60.63	6.45	0.553	0.433	0.212	0.072	896.62	103.78
17	500020296100	NPART	0.9651	63.33	3.06	0.462	0.059	0.058	0.008	388.94	12.92
18	501006019200	NPART	0.9942	70.22	1.56	0.440	0.131	0.175	0.008	1096.11	19.83
19	501006050900	NPART	0.9856	64.60	2.00	0.486	0.150	0.208	0.018	1022.78	31.49
20	501006052101	NPART	0.9808	66.51	2.54	0.192	0.076	0.078	0.008	416.72	14.45
21	506002056800	NPART	0.9911	64.10	1.52	0.143	0.068	0.121	0.008	531.26	14.13
22	506002077900	NPART	0.9853	63.95	2.15	0.112	0.072	0.103	0.010	446.23	15.31
23	506002084300	NPART	0.9921	65.91	1.68	0.338	0.061	0.101	0.007	563.20	11.85
24	506002125400	NPART	0.9853	63.15	2.02	0.961	0.114	0.170	0.016	991.45	24.43
25	506003071305	NPART	0.7478	73.20	13.46	0.392	0.050	0.007	0.002	185.19	6.39
26	506003077200	NPART	0.9884	66.95	2.03	0.362	0.060	0.077	0.006	485.19	11.33
27	515005032902	NPART	0.9904	64.00	1.51	0.624	0.171	0.305	0.021	1429.23	36.36
28	515007009000	NPART	0.8843	59.00	4.50	0.973	0.160	0.106	0.026	670.77	38.33
29	515007014307	NPART	0.9959	57.68	0.84	0.163	0.027	0.110	0.005	363.06	6.76
30	515008021001	NPART	0.9554	67.63	4.10	0.549	0.283	0.167	0.024	988.40	50.27
31	515008022303	NPART	0.9876	62.23	1.81	0.787	0.095	0.164	0.014	875.61	21.06
32	515014036400	NPART	0.9746	56.94	2.00	1.219	0.142	0.248	0.030	1095.98	36.84
33	515020016700	NPART	0.9567	56.36	2.81	0.457	0.120	0.165	0.029	583.93	31.52
34	515102005200	NPART	0.8138	88.00	-9.00	-0.316	0.173	0.034	0.005	258.42	26.09
35	518019019002	NPART	0.9458	69.67	4.71	0.571	0.199	0.089	0.013	671.50	31.85
36	530002014600	NPART	0.9778	68.03	3.20	0.518	0.156	0.114	0.012	738.39	24.58
37	530004023301	NPART	0.9495	55.12	2.83	0.269	0.058	0.080	0.015	285.20	15.58
38	530011004702	NPART	0.9734	67.88	3.04	0.440	0.131	0.102	0.011	645.74	23.58

PRISM Output
 Non-Participant
 Post-Treatment
 Paducah Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	531015009905	NPART	0.9868	68.00	1.95	-0.088	0.163	0.202	0.014	938.20	31.17
40	531015013403	NPART	0.9834	59.33	1.60	0.282	0.104	0.193	0.017	689.53	25.57
41	531015022301	NPART	0.9915	64.33	1.51	0.207	0.066	0.120	0.008	555.86	14.03
42	532003016401	NPART	0.9679	68.77	4.04	0.101	0.245	0.145	0.019	760.93	38.36
43	532003019202	NPART	0.9789	59.89	1.74	-0.032	0.106	0.177	0.017	544.64	26.16
44	534007003801	NPART	0.9924	66.27	1.56	0.802	0.168	0.273	0.016	1498.31	31.62
45	534013001602	NPART	0.9469	61.16	3.41	-0.018	0.116	0.103	0.018	340.83	26.64
46	534016005500	NPART	0.9722	75.06	3.78	0.197	0.274	0.116	0.010	839.88	32.06
47	534016008700	NPART	0.8931	62.36	5.52	0.290	0.137	0.078	0.021	387.52	31.17
48	534018009900	NPART	0.9829	69.60	2.62	0.584	0.190	0.156	0.013	1020.21	30.54
49	537001000201	NPART	0.9738	73.04	4.05	0.764	0.307	0.144	0.014	1149.58	36.66
50	537001017100	NPART	0.9679	67.24	3.70	0.767	0.339	0.225	0.029	1324.39	57.10
51	537002006702	NPART	0.9712	60.62	2.46	0.294	0.090	0.112	0.014	472.22	21.03
52	537002030200	NPART	0.9763	70.00	3.44	0.146	0.310	0.188	0.018	1044.67	43.82
53	537003016500	NPART	0.9854	62.78	2.03	0.210	0.084	0.130	0.012	554.87	18.49
54	537003030701	NPART	0.9868	61.48	1.76	0.574	0.059	0.104	0.009	566.39	13.37
55	537004000302	NPART	0.9840	68.35	2.48	0.089	0.161	0.148	0.012	755.11	26.79
56	537007022100	NPART	0.9918	73.00	2.12	0.141	0.131	0.113	0.006	731.19	16.41
57	537017035801	NPART	0.9827	61.68	2.00	0.328	0.064	0.099	0.010	463.15	14.62
58	537017047501	NPART	0.9971	65.75	0.94	0.019	0.027	0.078	0.003	343.69	5.45
59	537019009200	NPART	0.9812	67.30	2.98	-0.069	0.109	0.093	0.009	405.77	18.05
60	540115007300	NPART	0.9368	60.91	3.85	0.581	0.147	0.122	0.024	617.22	35.05
61	541006031600	NPART	0.9938	59.72	1.08	0.501	0.070	0.204	0.012	815.42	16.66
62	541007002301	NPART	0.9747	64.17	2.65	0.700	0.146	0.153	0.018	862.76	30.51
63	541009010700	NPART	0.9901	66.31	1.76	0.450	0.146	0.210	0.014	1093.92	27.93
64	541009019200	NPART	0.9881	66.36	1.94	0.586	0.085	0.110	0.008	704.11	16.15
65	541012039900	NPART	0.9877	70.83	2.31	0.463	0.224	0.207	0.014	1305.18	35.19
66	542014008952	NPART	0.9783	62.60	2.46	0.719	0.058	0.075	0.009	535.71	12.89
67	550001038700	NPART	0.9837	68.83	2.86	-0.101	0.374	0.315	0.029	1536.22	59.24
68	550003052601	NPART	0.9939	59.04	0.99	0.279	0.074	0.225	0.012	771.63	17.66
69	550006006501	NPART	0.9868	65.22	2.02	0.788	0.145	0.192	0.016	1093.35	28.51
70	550009076206	NPART	0.9913	64.19	1.48	0.880	0.099	0.179	0.012	1034.33	20.82
71	550014018900	NPART	0.9903	63.68	1.52	0.840	0.136	0.253	0.018	1285.42	30.43
72	550014025300	NPART	0.9284	54.98	3.97	0.727	0.261	0.306	0.079	972.42	71.81
73	550016016100	NPART	0.9247	70.00	5.56	1.060	0.302	0.112	0.019	977.19	47.57
74	550020050000	NPART	0.9662	52.64	2.62	0.687	0.144	0.300	0.059	842.12	45.53
75	550021023700	NPART	0.9815	64.47	2.25	0.523	0.078	0.098	0.010	584.67	16.64
76	550104003400	NPART	0.8474	54.00	5.45	0.887	0.322	0.257	0.096	879.12	88.08

PRISM Output
 Non-Participant
 Post-Treatment
 Paducah Station

	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	553007005001	NPART	0.9772	64.33	2.48	0.418	0.142	0.159	0.017	788.12	30.04
78	555004016803	NPART	0.8755	54.38	5.42	1.359	0.189	0.164	0.060	861.19	51.92
79	555005016800	NPART	0.9856	72.11	2.52	0.482	0.118	0.093	0.007	718.10	17.12
80	555008022602	NPART	0.9941	59.00	0.99	0.315	0.060	0.187	0.010	672.19	14.33
81	555012028400	NPART	0.9809	62.47	2.18	0.386	0.099	0.139	0.015	645.50	22.50
82	555013028700	NPART	0.9936	58.00	0.97	0.068	0.062	0.202	0.012	591.73	15.60
83	555015009007	NPART	0.9678	49.20	1.99	0.417	0.044	0.104	0.017	310.15	12.67
84	555019023192	NPART	0.9930	61.64	1.32	0.002	0.064	0.160	0.011	554.34	14.86
85	555021029100	NPART	0.9759	67.78	3.47	-0.117	0.227	0.167	0.020	753.12	37.50
86	560013031400	NPART	0.9935	60.87	1.11	0.703	0.045	0.123	0.007	663.91	11.00
87	560015018800	NPART	0.9526	49.93	3.11	0.650	0.172	0.383	0.106	855.80	66.50
88	560016037700	NPART	0.9531	57.61	2.83	0.435	0.066	0.082	0.014	382.97	17.28
89	560016100900	NPART	0.9194	61.65	4.51	0.591	0.153	0.107	0.024	587.77	35.72
90	560017023404	NPART	0.9851	57.58	1.65	0.239	0.096	0.213	0.021	668.58	24.89
91	562006032700	NPART	0.9820	69.59	2.87	0.173	0.162	0.123	0.011	698.20	24.74
92	562007009500	NPART	0.9787	74.50	3.70	0.116	0.228	0.109	0.009	742.39	26.29
93	562008002303	NPART	0.9796	57.29	1.82	0.536	0.119	0.223	0.024	795.09	29.99
94	562008020500	NPART	0.9789	60.19	2.04	0.595	0.066	0.099	0.011	532.94	15.51
95	562017012100	NPART	0.9903	67.39	1.88	1.096	0.101	0.131	0.009	1010.58	18.25
96	562021013900	NPART	0.9807	65.11	2.44	-0.039	0.140	0.159	0.016	647.64	28.29
97	564010006302	NPART	0.9926	65.54	1.53	0.166	0.050	0.090	0.006	442.44	10.02
98	564011023900	NPART	0.9793	70.75	3.37	0.078	0.213	0.132	0.012	748.39	29.73
99	564011024000	NPART	0.8817	75.82	10.59	-0.037	0.135	0.021	0.004	127.96	12.99
100	565001014600	NPART	0.9743	67.09	3.39	0.680	0.155	0.116	0.014	781.65	26.25
101	570004021700	NPART	0.9766	57.64	1.99	0.846	0.168	0.291	0.034	1105.92	42.44
102	570007017101	NPART	0.7849	70.85	11.13	0.541	0.912	0.170	0.054	1132.04	135.26
103	570008008300	NPART	0.9409	75.00	6.47	0.301	0.252	0.065	0.009	538.71	26.78
104	570010011500	NPART	0.9319	64.71	4.68	0.052	0.216	0.130	0.026	550.41	45.23
105	570010042400	NPART	0.8855	58.23	4.49	1.027	0.125	0.087	0.022	621.27	30.62
106	570011001800	NPART	0.9559	62.87	3.79	0.696	0.210	0.180	0.032	920.22	46.00
107	570011003001	NPART	0.9741	63.33	2.76	0.301	0.081	0.089	0.011	447.81	17.47
108	570120002600	NPART	0.9906	64.86	1.67	0.261	0.074	0.126	0.009	613.74	15.39
109	570305000900	NPART	0.9390	67.57	5.04	0.166	0.188	0.090	0.016	485.92	32.29
110	572017002703	NPART	0.9004	57.79	3.04	0.150	0.519	0.428	0.079	1239.64	130.12
111	573012001102	NPART	0.9965	59.10	0.81	0.491	0.043	0.166	0.007	675.25	10.04
112	574018001602	NPART	0.9703	64.00	2.74	0.382	0.147	0.146	0.018	714.00	31.14
113	574018025100	NPART	0.9732	75.85	4.41	0.494	0.335	0.130	0.012	1068.52	35.54
114	580002013800	NPART	0.9838	70.77	3.10	0.301	0.164	0.118	0.010	754.82	22.89

PRISM Output
Non-Participant
Post-Treatment
Paducah Station

	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	585018022900	NPART	0.9777	67.67	3.04	0.703	0.123	0.102	0.011	740.68	21.76
116	590011001500	NPART	0.9936	67.10	1.46	0.325	0.078	0.125	0.007	693.67	14.07
117	590011001605	NPART	0.9878	70.80	2.29	-0.070	0.102	0.094	0.006	486.31	16.08
118	590011007000	NPART	0.9862	72.54	2.53	0.292	0.245	0.191	0.013	1237.32	35.83
119	590017004000	NPART	0.9887	66.47	2.00	0.162	0.105	0.139	0.011	679.99	19.97

PRISM Output
 Non-Participant
 Pre-Treatment
 Bowling Green Station

	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	500003118400	NPART	0.9879	66.00	2.24	0.230	0.126	0.151	0.012	757.92	24.01
2	500003120800	NPART	0.9946	62.04	1.55	0.403	0.078	0.177	0.011	788.52	16.78
3	500003143201	NPART	0.9924	55.75	1.80	0.557	0.129	0.354	0.032	1074.37	30.13
4	500003220641	NPART	0.9860	62.22	2.52	0.181	0.074	0.104	0.010	446.18	15.94
5	500005115602	NPART	0.9654	57.39	4.00	0.759	0.151	0.173	0.033	750.44	35.69
6	500007377900	NPART	0.9873	61.00	2.38	1.184	0.168	0.256	0.025	1304.94	36.66
7	500008129800	NPART	0.9983	70.65	0.84	0.855	0.073	0.185	0.004	1347.26	12.69
8	500009318100	NPART	0.9432	62.51	5.08	0.877	0.171	0.112	0.022	734.92	36.33
9	500010523502	NPART	0.9535	61.31	4.84	0.636	0.286	0.218	0.042	990.73	61.66
10	500016212601	NPART	0.9672	60.78	3.95	0.377	0.195	0.191	0.031	782.48	43.58
11	500017250901	NPART	0.9813	63.30	2.71	0.276	0.126	0.143	0.015	653.04	26.44
12	500018446600	NPART	0.9949	55.90	1.37	1.033	0.111	0.361	0.024	1275.13	25.68
13	500018477800	NPART	0.9792	65.60	2.98	1.081	0.205	0.184	0.019	1199.84	38.18
14	500018506200	NPART	0.9480	58.11	4.42	0.671	0.299	0.266	0.053	1007.17	69.29
15	500018562000	NPART	0.9710	62.88	3.55	0.563	0.218	0.205	0.028	981.96	46.82
16	501006019200	NPART	0.9849	66.85	2.58	0.658	0.192	0.200	0.017	1170.58	37.24
17	501006050900	NPART	0.9899	59.00	1.99	0.393	0.154	0.301	0.027	1057.04	35.60
18	501006052101	NPART	0.9660	59.29	3.79	0.216	0.083	0.086	0.014	344.88	19.16
19	506002056800	NPART	0.9568	60.45	4.87	0.152	0.170	0.145	0.030	535.36	38.18
20	506002077900	NPART	0.9526	55.45	4.17	0.133	0.170	0.186	0.040	498.07	40.50
	506002084300	NPART	0.9551	57.03	4.43	0.398	0.192	0.195	0.042	667.24	45.37
22	506002125400	NPART	0.9745	61.75	3.67	1.180	0.173	0.183	0.027	1081.72	38.61
23	506003077200	NPART	0.9853	65.85	2.44	0.229	0.081	0.091	0.008	485.92	16.21
24	515005032902	NPART	0.9947	56.86	1.53	0.794	0.159	0.487	0.036	1580.71	37.66
25	515007009000	NPART	0.9955	59.75	1.38	0.892	0.037	0.107	0.006	665.07	8.71
26	515007014307	NPART	0.9827	51.17	2.02	0.385	0.062	0.150	0.018	407.02	15.86
27	515008021001	NPART	0.9701	61.64	3.81	0.938	0.288	0.276	0.041	1317.86	62.85
28	515008022303	NPART	0.9399	60.00	5.12	1.056	0.216	0.155	0.033	883.13	47.34
29	515014036400	NPART	0.9906	59.69	2.21	1.440	0.094	0.185	0.018	1111.33	21.37
30	515020016700	NPART	0.9945	55.38	1.51	0.433	0.059	0.195	0.015	626.76	13.50
31	515102005200	NPART	0.9937	65.00	1.56	0.181	0.026	0.046	0.003	262.88	5.13
32	518019019002	NPART	0.9690	55.36	3.38	0.848	0.131	0.178	0.031	737.40	30.35
33	532003016401	NPART	0.9859	66.31	2.56	0.437	0.158	0.171	0.015	933.54	30.46
34	532003019202	NPART	0.9773	59.00	3.39	0.215	0.128	0.161	0.024	567.17	29.19
35	537001000201	NPART	0.9901	71.88	2.51	0.423	0.171	0.149	0.010	1036.89	25.22
36	537001017100	NPART	0.9962	63.21	1.34	0.639	0.116	0.294	0.015	1366.75	24.18
37	537002006702	NPART	0.9777	59.00	3.31	0.433	0.092	0.120	0.018	520.43	21.15
38	537002030200	NPART	0.9915	62.46	2.10	0.237	0.166	0.292	0.024	1167.74	36.11

PRISM Output
 Non-Participant
 Pre-Treatment
 Bowling Green Station

IS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
39	537003016500	NPART	0.9970	58.57	1.18	0.229	0.055	0.211	0.011	706.33	13.22
40	537003030701	NPART	0.9936	54.39	1.45	0.595	0.047	0.156	0.012	566.52	11.40
41	537004000302	NPART	0.9774	64.68	3.25	0.320	0.160	0.156	0.019	767.03	33.29
42	537007022100	NPART	0.9928	65.00	1.56	0.437	0.088	0.146	0.008	777.99	17.61
43	537012007100	NPART	0.9915	60.11	2.14	0.073	0.100	0.199	0.018	670.04	22.22
44	537017035801	NPART	0.9688	57.36	3.48	0.285	0.082	0.098	0.016	373.07	19.00
45	537017047501	NPART	0.9946	62.00	1.41	0.057	0.039	0.088	0.005	338.49	8.27
46	537019009200	NPART	0.9877	58.49	2.26	-0.007	0.095	0.176	0.018	514.45	21.98
47	540004004700	NPART	0.9901	54.82	1.62	0.973	0.059	0.152	0.013	705.75	14.15
48	540115007300	NPART	0.9866	55.59	2.13	0.610	0.092	0.187	0.020	678.16	21.35
49	541006031600	NPART	0.9941	60.35	1.61	0.240	0.135	0.318	0.021	1132.72	29.91
50	541007002301	NPART	0.9896	66.23	1.90	0.549	0.123	0.157	0.010	907.75	23.71
51	541009010700	NPART	0.9827	66.07	2.42	0.468	0.266	0.267	0.022	1368.29	51.93
52	541009019200	NPART	0.9906	62.99	2.16	0.611	0.083	0.134	0.011	734.16	17.57
53	541012039900	NPART	0.9738	63.00	3.05	0.802	0.288	0.282	0.033	1369.96	60.83
54	542014008952	NPART	0.9502	67.26	4.52	0.593	0.130	0.070	0.010	549.10	24.00
55	560013031400	NPART	0.9936	57.02	1.55	0.646	0.059	0.167	0.013	682.44	13.95
56	560015018800	NPART	0.9906	52.77	1.81	0.497	0.107	0.326	0.034	833.61	26.90
57	560016037700	NPART	0.9662	55.36	3.55	0.416	0.101	0.132	0.024	469.18	23.84
58	560016100900	NPART	0.9807	61.16	3.13	0.473	0.100	0.123	0.015	595.07	21.59
59	560017023404	NPART	0.9926	56.62	1.77	0.244	0.087	0.229	0.019	685.65	20.36
60	562006032700	NPART	0.9965	64.41	1.19	0.273	0.068	0.171	0.007	801.79	14.18
61	562007009500	NPART	0.9805	70.25	3.00	0.247	0.169	0.123	0.011	767.03	28.92
62	562008002303	NPART	0.9726	58.24	3.14	-0.032	0.214	0.280	0.039	798.98	49.98
63	562008020500	NPART	0.9936	57.36	1.48	0.561	0.049	0.132	0.009	566.97	11.63
64	562009011501	NPART	0.9843	70.04	2.54	0.133	0.274	0.232	0.017	1306.58	47.78
65	562017012100	NPART	0.9797	60.23	3.13	1.058	0.117	0.149	0.019	871.84	26.09
66	562021013900	NPART	0.9993	58.56	0.58	0.027	0.030	0.240	0.006	717.86	7.05
67	564010006302	NPART	0.9846	60.47	1.86	0.087	0.071	0.116	0.009	416.22	16.32
68	564011023900	NPART	0.9952	64.35	1.42	0.249	0.078	0.166	0.009	770.77	15.94
69	564011024000	NPART	0.9820	57.89	3.02	0.026	0.033	0.052	0.007	155.36	7.76
70	565001014600	NPART	0.9929	62.46	1.74	0.512	0.077	0.154	0.011	757.41	16.62
71	570004021700	NPART	0.9907	52.99	2.04	0.922	0.142	0.431	0.051	1212.94	35.27
72	570007017101	NPART	0.9947	54.00	1.08	0.790	0.118	0.426	0.025	1218.61	28.41
73	570008008300	NPART	0.9828	62.50	2.69	0.645	0.102	0.124	0.013	697.07	21.75
74	570010011500	NPART	0.9799	56.13	2.78	0.235	0.139	0.220	0.030	640.06	32.21
75	570010042400	NPART	0.9801	57.17	2.86	1.037	0.078	0.118	0.016	696.88	18.13
76	570011001800	NPART	0.9907	61.85	2.22	0.621	0.137	0.239	0.021	1083.89	30.08

PRISM Output
Non-Participant
Pre-Treatment
Bowling Green Station

BS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
77	570011003001	NPART	0.9885	61.45	2.39	0.375	0.094	0.151	0.015	664.91	20.72
78	570120002600	NPART	0.9903	63.55	2.04	0.238	0.096	0.154	0.012	693.79	20.41
79	570305000900	NPART	0.9960	55.57	1.19	0.095	0.057	0.220	0.014	569.36	13.55
80	572017002703	NPART	0.9785	68.68	3.09	0.793	0.361	0.282	0.027	1726.26	64.88
81	573012001102	NPART	0.9989	54.57	0.64	0.497	0.023	0.183	0.006	598.05	5.60
82	574018001602	NPART	0.9704	65.81	3.66	0.371	0.175	0.132	0.016	719.12	32.97
83	574018025100	NPART	0.9882	65.61	2.26	0.767	0.177	0.215	0.017	1221.47	33.35

PRISM Output
 Non-Participant
 Post-Treatment
 Bowling Green Station

BS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	500003118400	NPART	0.9962	69.74	1.34	0.192	0.082	0.143	0.006	834.58	12.40
2	500003120800	NPART	0.9790	61.44	2.13	0.715	0.108	0.160	0.018	819.97	25.13
3	500003143201	NPART	0.9836	62.76	2.15	0.442	0.121	0.191	0.020	878.82	27.66
4	500003220641	NPART	0.9824	61.68	1.99	0.259	0.063	0.101	0.010	452.68	14.70
5	500005115602	NPART	0.9808	65.98	2.62	0.455	0.113	0.117	0.012	689.28	21.20
6	500007377900	NPART	0.7093	62.10	10.12	1.040	0.614	0.198	0.102	1098.05	138.29
7	500008129800	NPART	0.9556	70.59	4.61	1.265	0.352	0.167	0.023	1392.92	51.48
8	500009318100	NPART	0.9841	63.00	2.01	0.939	0.061	0.092	0.009	693.65	13.27
9	500010523502	NPART	0.9835	64.48	2.06	0.492	0.181	0.234	0.021	1144.41	37.17
10	500011181901	NPART	0.9946	62.41	1.15	1.140	0.083	0.230	0.013	1266.60	18.95
11	500016212601	NPART	0.9743	60.31	2.24	0.486	0.118	0.167	0.021	725.76	28.49
12	500017250901	NPART	0.9819	65.27	2.28	0.259	0.095	0.109	0.010	562.90	18.59
13	500018446600	NPART	0.9852	54.68	1.96	1.262	0.123	0.341	0.047	1241.97	35.58
14	500018477800	NPART	0.9895	67.00	1.91	0.861	0.146	0.185	0.013	1181.81	25.23
15	500018506200	NPART	0.9935	58.63	1.14	0.569	0.092	0.289	0.020	1063.12	23.20
16	500018562000	NPART	0.8508	59.86	5.97	0.513	0.409	0.233	0.078	929.99	100.64
17	500020296100	NPART	0.9766	60.14	2.11	0.475	0.046	0.070	0.008	401.02	11.18
18	501006019200	NPART	0.9977	67.83	0.91	0.503	0.074	0.193	0.006	1127.89	12.65
19	501006050900	NPART	0.9914	61.66	1.39	0.536	0.108	0.244	0.018	1060.67	24.80
20	501006052101	NPART	0.9831	64.14	2.09	0.211	0.068	0.087	0.008	430.13	13.78
21	506002056800	NPART	0.9968	61.83	0.89	0.157	0.038	0.138	0.006	550.33	8.60
22	506002077900	NPART	0.9928	61.39	1.29	0.128	0.048	0.119	0.008	463.37	10.96
23	506002084300	NPART	0.9959	63.44	1.11	0.364	0.040	0.115	0.006	580.58	8.56
24	506002125400	NPART	0.9936	60.87	1.24	0.978	0.073	0.195	0.013	1018.66	17.02
25	506003071305	NPART	0.7548	78.00	21.75	0.371	0.104	0.007	0.002	185.99	6.04
26	506003077200	NPART	0.9949	64.00	1.28	0.391	0.035	0.089	0.005	499.90	7.59
27	515005032902	NPART	0.9903	61.62	1.48	0.676	0.161	0.349	0.027	1479.86	37.44
28	515007009000	NPART	0.8811	57.94	4.82	0.965	0.161	0.117	0.034	684.95	41.12
29	515007014307	NPART	0.9792	56.99	1.76	0.155	0.062	0.120	0.013	376.32	16.17
30	515008021001	NPART	0.9633	64.05	3.10	0.635	0.224	0.196	0.027	1024.00	45.91
31	515008022303	NPART	0.9924	59.56	1.25	0.807	0.072	0.195	0.014	906.49	17.38
32	515014036400	NPART	0.9657	55.00	1.94	1.261	0.165	0.291	0.039	1141.49	44.60
33	515020016700	NPART	0.9604	53.49	3.30	0.487	0.114	0.210	0.052	621.12	36.47
34	515102005200	NPART	0.8275	88.00	-9.00	-0.364	0.171	0.036	0.005	268.11	25.10
35	518019019002	NPART	0.9556	67.01	3.84	0.607	0.165	0.100	0.014	691.00	28.47
36	530002014600	NPART	0.9718	65.50	3.12	0.570	0.145	0.127	0.016	761.70	27.53
37	530004023301	NPART	0.9411	54.22	3.18	0.269	0.062	0.089	0.021	295.78	17.72
38	530011004702	NPART	0.9739	65.45	2.57	0.471	0.116	0.114	0.012	667.38	23.18

PRISM Output
 Non-Participant
 Post-Treatment
 Bowling Green Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	531015009905	NPART	0.9842	66.00	1.87	-0.049	0.167	0.223	0.018	978.39	34.74
40	531015013403	NPART	0.9915	57.57	1.08	0.285	0.073	0.224	0.015	724.09	18.90
41	531015022301	NPART	0.9977	62.37	0.73	0.213	0.031	0.136	0.005	577.63	7.25
42	532003016401	NPART	0.9800	65.92	2.65	0.172	0.158	0.164	0.017	791.10	30.00
43	532003019202	NPART	0.9802	58.22	1.64	-0.033	0.102	0.204	0.022	578.01	27.09
44	534007003801	NPART	0.9905	63.82	1.77	0.871	0.165	0.308	0.025	1544.88	35.58
45	534013001602	NPART	0.9584	59.35	2.71	-0.018	0.100	0.118	0.018	358.29	24.35
46	534016005500	NPART	0.9756	73.00	3.36	0.261	0.236	0.124	0.011	868.33	29.79
47	534016008700	NPART	0.8976	59.50	4.33	0.307	0.126	0.093	0.024	404.38	31.86
48	534018009900	NPART	0.9780	67.43	2.76	0.652	0.195	0.170	0.017	1052.08	34.11
49	537001000201	NPART	0.9857	70.73	2.86	0.832	0.186	0.156	0.013	1181.51	26.29
50	537001017100	NPART	0.9767	64.13	2.53	0.876	0.243	0.260	0.028	1371.69	48.54
51	537002006702	NPART	0.9461	59.72	3.23	0.300	0.122	0.119	0.021	484.73	29.20
52	537002030200	NPART	0.9754	68.00	3.22	0.211	0.284	0.203	0.022	1075.24	44.26
53	537003016500	NPART	0.9738	61.32	2.43	0.218	0.111	0.141	0.018	570.48	24.97
54	537003030701	NPART	0.9987	59.60	0.50	0.580	0.018	0.117	0.003	579.81	4.32
55	537004000302	NPART	0.9881	65.43	1.95	0.155	0.123	0.168	0.013	783.58	23.25
56	537007022100	NPART	0.9946	70.50	1.62	0.191	0.091	0.123	0.006	751.24	13.08
57	537017035801	NPART	0.9729	59.69	2.30	0.348	0.079	0.112	0.015	480.78	19.08
58	537017047501	NPART	0.9913	64.31	1.52	0.033	0.048	0.084	0.006	357.35	9.64
59	537019009200	NPART	0.9815	64.57	2.40	-0.024	0.089	0.104	0.011	424.06	17.69
60	540115007300	NPART	0.9429	57.08	3.15	0.638	0.138	0.155	0.031	649.60	34.91
61	541006031600	NPART	0.9935	58.45	1.04	0.497	0.072	0.226	0.014	842.64	17.92
62	541007002301	NPART	0.9899	61.37	1.50	0.715	0.085	0.180	0.014	889.02	19.46
63	541009010700	NPART	0.9923	63.59	1.49	0.501	0.114	0.242	0.017	1134.59	24.77
64	541009019200	NPART	0.9957	63.78	1.14	0.607	0.045	0.127	0.007	725.21	9.80
65	541012039900	NPART	0.9905	68.18	1.80	0.571	0.180	0.230	0.015	1351.98	30.96
66	542014008952	NPART	0.9730	60.12	2.25	0.738	0.062	0.087	0.011	551.07	14.95
67	550001038700	NPART	0.9906	65.67	1.80	0.088	0.236	0.359	0.026	1606.31	44.56
68	550003052601	NPART	0.9920	57.17	1.05	0.303	0.083	0.258	0.017	808.41	21.12
69	550006006501	NPART	0.9897	63.74	1.74	0.803	0.117	0.208	0.017	1117.66	25.06
70	550009076206	NPART	0.9920	61.57	1.32	0.897	0.088	0.210	0.014	1066.06	20.11
71	550014018900	NPART	0.9883	61.55	1.41	0.869	0.142	0.289	0.022	1332.75	33.89
72	550014025300	NPART	0.9167	57.32	3.43	0.583	0.297	0.281	0.061	979.91	76.61
73	550014026103	NPART	0.7229	44.00	4.99	0.689	0.326	0.570	0.404	800.55	188.05
74	550016016100	NPART	0.9246	68.09	5.10	1.097	0.276	0.121	0.022	1001.56	47.61
75	550020050000	NPART	0.9782	49.00	1.68	0.716	0.107	0.446	0.079	928.28	46.05
76	550021023700	NPART	0.9828	61.71	1.95	0.544	0.069	0.114	0.012	602.36	16.23

PRISM Output
 Non-Participant
 Post-Treatment
 Bowling Green Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	550104003400	NPART	0.8191	50.00	5.33	0.973	0.332	0.365	0.188	947.55	125.75
78	553007005001	NPART	0.9857	61.91	1.84	0.429	0.105	0.183	0.017	814.66	24.18
79	555004016803	NPART	0.8672	53.85	5.95	1.362	0.196	0.176	0.075	877.29	57.20
80	555005016800	NPART	0.9845	70.44	2.66	0.500	0.122	0.100	0.008	734.45	17.84
81	555008022602	NPART	0.9880	57.65	1.35	0.307	0.085	0.211	0.018	700.55	21.71
82	555012028400	NPART	0.9653	60.75	2.57	0.399	0.128	0.155	0.022	667.99	31.35
83	555013028700	NPART	0.9877	56.00	1.22	0.095	0.086	0.236	0.020	626.12	22.62
84	555015009007	NPART	0.9628	47.95	2.73	0.408	0.046	0.132	0.035	330.67	18.15
85	555019023192	NPART	0.9859	59.56	1.65	0.024	0.089	0.183	0.018	582.10	22.17
86	555021029100	NPART	0.9744	64.27	2.73	-0.005	0.191	0.194	0.023	791.18	38.23
87	555104016702	NPART	0.8657	39.98	2.25	0.241	0.490	2.769	1.022	1848.90	315.98
88	560013031400	NPART	0.9928	59.72	1.07	0.696	0.047	0.135	0.008	682.38	11.68
89	560015018800	NPART	0.9739	48.94	2.11	0.637	0.124	0.454	0.091	909.15	49.92
90	560016037700	NPART	0.9733	52.16	2.00	0.476	0.045	0.124	0.021	411.33	14.53
91	560016100900	NPART	0.9217	60.23	3.94	0.597	0.148	0.119	0.026	606.00	36.33
92	560017023404	NPART	0.9857	55.63	1.67	0.273	0.095	0.249	0.028	708.71	26.50
93	562006032700	NPART	0.9962	66.47	1.11	0.239	0.063	0.139	0.006	722.77	11.29
94	562007009500	NPART	0.9866	72.30	2.62	0.164	0.145	0.117	0.009	765.08	19.92
95	562008002303	NPART	0.9950	56.05	0.76	0.520	0.060	0.255	0.013	830.12	15.84
96	562008020500	NPART	0.9958	57.89	0.84	0.600	0.028	0.117	0.006	551.16	7.24
97	562017012100	NPART	0.9938	65.48	1.31	1.128	0.072	0.144	0.008	1037.76	14.56
98	562021013900	NPART	0.9887	62.07	1.67	0.005	0.094	0.187	0.016	679.47	21.68
99	564010006302	NPART	0.9991	62.65	0.51	0.182	0.016	0.105	0.003	460.83	3.55
100	564011023900	NPART	0.9902	67.14	1.90	0.172	0.124	0.152	0.010	778.63	20.33
101	564011024000	NPART	0.9065	71.34	7.26	-0.009	0.085	0.024	0.005	133.52	11.08
102	565001014600	NPART	0.9802	63.00	2.36	0.753	0.102	0.140	0.016	810.00	22.58
103	570004021700	NPART	0.9866	56.00	1.23	0.847	0.130	0.338	0.029	1154.38	34.56
104	570007017101	NPART	0.8290	65.37	7.98	0.716	0.647	0.212	0.069	1179.48	121.68
105	570008008300	NPART	0.9609	72.67	4.35	0.322	0.151	0.071	0.009	552.98	21.12
106	570010011500	NPART	0.9529	61.38	3.23	0.070	0.164	0.158	0.027	576.67	37.75
107	570010042400	NPART	0.9104	56.97	3.67	1.010	0.111	0.100	0.024	634.84	28.77
108	570011001800	NPART	0.9552	61.22	3.11	0.694	0.204	0.201	0.033	948.20	46.55
109	570011003001	NPART	0.9850	60.71	1.87	0.310	0.059	0.105	0.010	464.01	13.86
110	570120002600	NPART	0.9925	61.93	1.36	0.304	0.060	0.147	0.010	638.85	13.98
111	570305000900	NPART	0.9627	64.32	3.32	0.198	0.128	0.105	0.015	503.48	25.37
112	572017002703	NPART	0.9299	57.19	2.20	0.160	0.447	0.470	0.067	1331.72	111.76
113	573012001102	NPART	0.9946	57.49	0.95	0.492	0.052	0.189	0.011	701.60	13.03
114	574018001602	NPART	0.9642	61.47	2.68	0.416	0.148	0.169	0.024	743.17	34.48

PRISM Output
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Bowling Green Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	574018025100	NPART	0.9778	73.80	3.44	0.566	0.257	0.139	0.012	1101.82	31.79
116	580002013800	NPART	0.9915	67.55	1.99	0.387	0.103	0.133	0.009	781.45	16.66
117	585018022900	NPART	0.9858	66.05	2.08	0.714	0.095	0.112	0.009	759.95	17.46
118	590011001500	NPART	0.9955	65.16	1.08	0.341	0.059	0.138	0.006	716.10	11.74
119	590011001605	NPART	0.9943	67.99	1.34	-0.025	0.060	0.105	0.005	505.99	10.90
120	590011007000	NPART	0.9931	70.00	1.67	0.378	0.165	0.210	0.011	1277.09	25.28
121	590017004000	NPART	0.9897	65.25	1.71	0.170	0.098	0.150	0.011	705.17	19.24

PRISM Output
 Non-Participant
 Pre-Treatment
 Louisville Station

	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	PRENAC	SE_NAC
1	530002014600	NPART	0.9883	61.67	2.75	0.639	0.094	0.129	0.013	701.36	20.41
2	530004023301	NPART	0.9921	59.72	1.88	0.292	0.054	0.103	0.008	440.62	12.50
3	530011004702	NPART	0.9882	63.76	2.49	0.416	0.084	0.104	0.009	572.77	17.15
4	531015009905	NPART	0.9726	64.04	3.71	-0.050	0.259	0.201	0.025	807.28	51.72
5	531015013403	NPART	0.9899	66.48	2.08	0.043	0.105	0.141	0.009	672.12	22.28
6	531015022301	NPART	0.9911	67.07	1.79	-0.033	0.090	0.120	0.007	559.27	17.59
7	534007003801	NPART	0.9909	66.27	2.10	0.735	0.212	0.256	0.016	1443.83	39.94
8	534013001602	NPART	0.7908	49.00	7.48	0.166	0.202	0.133	0.064	269.67	53.57
9	534016005500	NPART	0.9950	69.85	1.36	0.333	0.082	0.123	0.005	791.99	15.31
10	534016008700	NPART	0.9867	55.68	2.19	0.339	0.061	0.113	0.012	409.86	14.52
11	534018009900	NPART	0.9946	70.32	1.53	0.597	0.103	0.136	0.006	975.14	17.53
12	550001038700	NPART	0.9896	65.36	2.45	0.080	0.300	0.358	0.028	1601.36	57.04
13	550003052601	NPART	0.9402	67.38	5.95	0.192	0.260	0.114	0.020	621.03	47.28
14	550006006501	NPART	0.9649	65.11	4.08	0.649	0.370	0.241	0.031	1280.91	73.47
15	550009076206	NPART	0.9896	65.00	2.16	0.812	0.155	0.189	0.013	1110.96	30.59
16	550014018900	NPART	0.9810	65.15	2.77	0.842	0.200	0.188	0.017	1124.53	40.60
17	550014025300	NPART	0.8216	64.40	9.83	0.610	0.398	0.115	0.038	706.08	81.99
18	550014026103	NPART	0.8543	50.94	6.38	0.357	0.326	0.242	0.088	572.59	80.55
19	550016016100	NPART	0.9944	64.14	1.62	1.105	0.093	0.163	0.009	1078.71	18.55
20	550020050000	NPART	0.9208	46.78	5.25	0.943	0.566	0.769	0.266	1353.24	152.47
	550021023700	NPART	0.9894	64.64	2.55	0.512	0.075	0.093	0.008	581.87	14.64
22	550104003400	NPART	0.9948	65.86	1.73	0.652	0.083	0.141	0.008	871.81	16.30
23	553007005001	NPART	0.9892	62.97	2.31	0.511	0.115	0.160	0.013	806.56	24.96
24	555004016803	NPART	0.9781	63.65	3.28	1.058	0.086	0.080	0.009	707.60	18.19
25	555005016800	NPART	0.9889	68.72	2.22	0.374	0.104	0.106	0.007	681.83	19.33
26	555008022602	NPART	0.9965	61.72	1.37	0.301	0.062	0.158	0.008	683.65	13.50
27	555012028400	NPART	0.9745	62.00	3.59	0.380	0.151	0.136	0.018	641.02	31.39
28	555013028700	NPART	0.9929	60.18	1.80	-0.012	0.083	0.160	0.011	528.06	18.44
29	555015009007	NPART	0.9281	56.00	4.85	0.432	0.088	0.067	0.015	331.43	20.15
30	555019023192	NPART	0.8794	54.73	7.58	-0.035	0.257	0.153	0.056	352.43	61.03
31	555021029100	NPART	0.9807	61.11	3.32	0.434	0.195	0.218	0.028	925.91	43.07
32	555104016702	NPART	0.9833	64.75	2.90	0.117	0.235	0.237	0.023	1052.50	48.54

PRISM Output
 Non-Participant
 Post-Treatment
 Louisville Station

OS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
1	500003118400	NPART	0.9978	70.87	1.09	0.168	0.065	0.137	0.004	842.16	9.48
2	500003120800	NPART	0.9820	62.56	2.16	0.712	0.102	0.150	0.016	830.30	23.72
3	500003143201	NPART	0.9862	63.90	1.99	0.428	0.125	0.180	0.016	890.17	26.93
4	500003220641	NPART	0.9764	63.89	2.62	0.240	0.082	0.090	0.010	455.73	17.73
5	500005115602	NPART	0.9829	67.32	2.55	0.432	0.116	0.111	0.010	695.95	20.18
6	500007377900	NPART	0.7200	61.00	9.13	1.109	0.588	0.206	0.099	1124.92	138.80
7	500008129800	NPART	0.9515	72.00	5.41	1.248	0.420	0.158	0.023	1401.61	54.41
8	500009318100	NPART	0.9857	64.38	1.83	0.933	0.060	0.086	0.007	698.40	12.94
9	500010523502	NPART	0.9840	65.75	2.04	0.474	0.180	0.220	0.018	1156.97	37.02
10	500011181901	NPART	0.9962	64.00	0.92	1.130	0.077	0.211	0.009	1279.47	16.48
11	500016212601	NPART	0.9854	61.70	1.87	0.474	0.087	0.154	0.015	732.99	21.17
12	500017250901	NPART	0.9901	66.32	1.67	0.245	0.071	0.104	0.007	567.72	14.05
13	500018446600	NPART	0.9916	55.21	1.26	1.260	0.093	0.320	0.027	1248.41	26.09
14	500018477800	NPART	0.9889	68.30	2.02	0.842	0.152	0.174	0.012	1188.13	26.32
15	500018506200	NPART	0.9946	59.68	1.19	0.574	0.084	0.266	0.017	1071.95	20.87
16	500018562000	NPART	0.8261	61.07	6.84	0.545	0.439	0.211	0.077	937.45	105.82
17	500020296100	NPART	0.9800	61.53	2.26	0.474	0.042	0.064	0.008	403.59	10.18
18	501006019200	NPART	0.9992	69.13	0.53	0.472	0.043	0.184	0.003	1140.18	7.21
19	501006050900	NPART	0.9913	63.27	1.52	0.521	0.122	0.224	0.015	1075.58	25.99
20	501006052101	NPART	0.9880	65.12	1.76	0.205	0.059	0.083	0.006	436.20	11.79
21	506002056800	NPART	0.9987	63.06	0.61	0.157	0.028	0.129	0.004	560.33	5.78
22	506002077900	NPART	0.9957	62.40	1.13	0.131	0.039	0.113	0.006	472.56	8.67
23	506002084300	NPART	0.9968	64.91	1.04	0.347	0.039	0.107	0.005	587.03	7.95
24	506002125400	NPART	0.9958	62.16	1.09	0.975	0.061	0.182	0.010	1031.88	13.64
25	506003071305	NPART	0.7655	77.00	16.37	0.376	0.073	0.007	0.002	186.40	5.98
26	506003077200	NPART	0.9946	65.90	1.23	0.367	0.039	0.082	0.004	503.72	7.93
27	515005032902	NPART	0.9929	63.00	1.35	0.661	0.154	0.324	0.020	1502.77	33.32
28	515007009000	NPART	0.8891	58.00	4.97	0.976	0.160	0.115	0.033	694.41	39.67
29	515007014307	NPART	0.9830	57.40	1.86	0.160	0.055	0.115	0.013	383.52	14.15
30	515008021001	NPART	0.9591	65.84	3.27	0.601	0.234	0.181	0.025	1032.63	48.65
31	515008022303	NPART	0.9953	60.58	1.10	0.811	0.056	0.182	0.011	917.63	13.47
32	515014036400	NPART	0.9737	56.14	1.91	1.226	0.144	0.265	0.032	1140.79	38.25
33	515020016700	NPART	0.9677	52.86	2.66	0.505	0.097	0.214	0.045	634.53	34.13
34	515102005200	NPART	0.8248	85.00	280.12	-0.233	9.746	0.035	0.006	269.33	40.83
35	518019019002	NPART	0.9614	68.00	3.61	0.602	0.155	0.095	0.012	695.29	26.94
36	530002014600	NPART	0.9770	66.77	2.84	0.536	0.133	0.122	0.013	767.78	25.55
37	530004023301	NPART	0.9544	53.61	2.87	0.273	0.053	0.092	0.020	302.56	16.87
38	530011004702	NPART	0.9809	66.37	2.19	0.463	0.101	0.109	0.010	671.69	20.23

PRISM Output
 Non-Participant
 Post-Treatment
 Louisville Station

RS	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
39	531015009905	NPART	0.9883	67.00	1.72	-0.063	0.143	0.212	0.015	986.36	29.87
40	531015013403	NPART	0.9937	58.15	1.04	0.294	0.064	0.211	0.013	733.15	16.36
41	531015022301	NPART	0.9943	63.52	1.13	0.219	0.053	0.126	0.007	584.50	11.88
42	532003016401	NPART	0.9817	67.17	2.64	0.136	0.165	0.156	0.015	798.97	29.06
43	532003019202	NPART	0.9897	58.42	1.27	-0.017	0.073	0.198	0.015	590.84	19.59
44	534007003801	NPART	0.9933	65.46	1.36	0.817	0.152	0.286	0.016	1559.66	30.67
45	534013001602	NPART	0.9581	59.70	3.12	-0.006	0.100	0.113	0.019	365.19	24.58
46	534016005500	NPART	0.9815	74.00	3.03	0.237	0.221	0.120	0.009	872.46	26.53
47	534016008700	NPART	0.9116	60.35	4.65	0.305	0.118	0.088	0.023	409.20	29.23
48	534018009900	NPART	0.9849	68.38	2.30	0.638	0.164	0.163	0.013	1060.03	28.72
49	537001000201	NPART	0.9834	71.66	3.31	0.817	0.221	0.151	0.013	1188.13	28.84
50	537001017100	NPART	0.9781	65.85	2.47	0.811	0.236	0.241	0.024	1379.14	47.42
51	537002006702	NPART	0.9564	60.79	3.36	0.295	0.110	0.111	0.019	491.83	25.95
52	537002030200	NPART	0.9771	69.00	3.11	0.195	0.271	0.195	0.019	1088.63	42.81
53	537003016500	NPART	0.9817	62.80	2.34	0.210	0.095	0.131	0.014	580.58	21.35
54	537003030701	NPART	0.9983	60.47	0.65	0.584	0.021	0.111	0.004	588.18	4.96
55	537004000302	NPART	0.9870	66.84	2.11	0.128	0.131	0.158	0.013	793.71	24.81
56	537007022100	NPART	0.9947	71.71	1.73	0.182	0.093	0.117	0.006	760.25	13.04
57	537017035801	NPART	0.9729	61.00	2.40	0.338	0.079	0.104	0.013	487.17	18.69
58	537017047501	NPART	0.9921	65.22	1.44	0.022	0.047	0.081	0.005	362.80	9.37
59	537019009200	NPART	0.9903	65.75	1.75	-0.048	0.066	0.100	0.007	429.09	13.02
60	540115007300	NPART	0.9561	59.56	3.41	0.595	0.124	0.134	0.025	647.95	30.40
61	541006031600	NPART	0.9951	59.21	0.98	0.500	0.062	0.214	0.012	857.01	15.28
62	541007002301	NPART	0.9887	62.58	1.76	0.721	0.091	0.168	0.014	902.86	20.91
63	541009010700	NPART	0.9940	64.84	1.25	0.492	0.105	0.227	0.012	1150.02	22.58
64	541009019200	NPART	0.9938	65.00	1.28	0.605	0.057	0.119	0.007	733.28	12.12
65	541012039900	NPART	0.9938	69.37	1.47	0.546	0.144	0.218	0.011	1361.17	25.16
66	542014008952	NPART	0.9845	61.44	1.88	0.732	0.046	0.080	0.008	554.90	11.16
67	550001038700	NPART	0.9914	67.24	1.86	-0.023	0.248	0.338	0.022	1618.16	43.41
68	550003052601	NPART	0.9895	57.88	1.54	0.304	0.095	0.243	0.022	818.08	24.32
69	550006006501	NPART	0.9904	65.00	1.55	0.781	0.125	0.196	0.013	1132.56	25.00
70	550009076206	NPART	0.9949	62.68	1.14	0.910	0.071	0.196	0.011	1081.15	16.25
71	550014018900	NPART	0.9945	63.00	1.01	0.858	0.106	0.265	0.013	1344.58	24.00
72	550014025300	NPART	0.9035	53.63	4.19	0.765	0.300	0.338	0.101	1027.45	89.35
73	550014026103	NPART	0.7681	44.87	5.91	0.660	0.293	0.502	0.355	798.14	164.21
74	550016016100	NPART	0.9405	69.00	4.48	1.078	0.243	0.117	0.018	1007.22	42.50
75	550020050000	NPART	0.9831	49.49	1.80	0.720	0.093	0.411	0.074	935.35	43.56
76	550021023700	NPART	0.9898	63.82	1.74	0.525	0.060	0.102	0.008	605.58	13.10

PRISM Output
 Non-Participant
 Post-Treatment
 Louisville Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
77	550104003400	NPART	0.8262	49.00	5.53	1.005	0.316	0.391	0.220	981.31	137.05
78	553007005001	NPART	0.9887	62.89	1.88	0.440	0.097	0.173	0.016	829.93	22.09
79	555004016803	NPART	0.8730	53.46	5.22	1.366	0.189	0.178	0.068	889.20	57.15
80	555005016800	NPART	0.9840	70.91	2.72	0.516	0.117	0.097	0.008	743.02	18.37
81	555008022602	NPART	0.9908	58.00	1.40	0.316	0.076	0.204	0.017	712.74	19.00
82	555012028400	NPART	0.9706	62.09	2.57	0.398	0.121	0.143	0.019	675.42	28.72
83	555013028700	NPART	0.9904	57.61	1.47	0.068	0.075	0.210	0.019	626.92	19.47
84	555015009007	NPART	0.9642	47.00	2.08	0.418	0.045	0.142	0.031	342.32	18.14
85	555019023192	NPART	0.9841	60.79	2.09	0.028	0.095	0.168	0.019	589.05	23.07
86	555021029100	NPART	0.9708	66.00	3.03	-0.054	0.220	0.180	0.021	798.47	41.65
87	555104016702	NPART	0.9108	37.60	1.60	0.294	0.403	4.142	1.349	2281.48	385.02
88	560013031400	NPART	0.9928	60.83	1.27	0.698	0.047	0.125	0.008	687.70	11.54
89	560015018800	NPART	0.9724	49.40	2.43	0.639	0.130	0.422	0.096	917.87	55.75
90	560016037700	NPART	0.9730	53.50	2.19	0.467	0.047	0.110	0.018	410.75	15.12
91	560016100900	NPART	0.9224	61.27	4.21	0.598	0.144	0.111	0.025	612.02	35.62
92	560017023404	NPART	0.9831	55.72	1.89	0.283	0.102	0.242	0.030	718.86	28.86
93	562006032700	NPART	0.9954	68.00	1.28	0.209	0.073	0.131	0.006	730.80	12.43
94	562007009500	NPART	0.9826	73.94	3.47	0.121	0.206	0.112	0.009	770.60	24.00
95	562008002303	NPART	0.9948	56.39	1.02	0.526	0.061	0.244	0.016	839.97	16.01
96	562008020500	NPART	0.9906	58.81	1.52	0.602	0.044	0.109	0.009	556.26	10.85
97	562017012100	NPART	0.9952	66.59	1.15	1.110	0.064	0.137	0.006	1043.39	13.01
98	562021013900	NPART	0.9915	64.28	1.52	-0.028	0.092	0.167	0.011	682.56	19.62
99	564010006302	NPART	0.9976	64.21	0.74	0.178	0.028	0.097	0.003	466.47	5.94
100	564011023900	NPART	0.9854	68.94	2.44	0.136	0.153	0.141	0.011	785.39	25.20
101	564011024000	NPART	0.9030	74.00	8.57	-0.026	0.113	0.022	0.004	134.21	11.75
102	565001014600	NPART	0.9871	64.79	1.91	0.729	0.088	0.128	0.011	812.99	18.86
103	570004021700	NPART	0.9854	55.92	1.77	0.864	0.133	0.333	0.038	1173.43	37.27
104	570007017101	NPART	0.8175	67.92	9.18	0.639	0.714	0.191	0.062	1185.20	126.48
105	570008008300	NPART	0.9544	74.00	5.08	0.315	0.201	0.068	0.008	556.68	23.58
106	570010011500	NPART	0.9479	64.54	3.67	0.029	0.189	0.135	0.022	579.84	40.50
107	570010042400	NPART	0.9074	54.18	3.81	1.059	0.107	0.114	0.031	649.53	29.60
108	570011001800	NPART	0.9595	61.74	3.25	0.725	0.190	0.193	0.032	965.54	44.46
109	570011003001	NPART	0.9833	62.35	2.09	0.311	0.063	0.095	0.010	470.16	14.39
110	570120002600	NPART	0.9928	62.86	1.49	0.304	0.061	0.139	0.010	647.41	14.11
111	570305000900	NPART	0.9596	66.30	3.68	0.169	0.143	0.097	0.014	507.95	26.80
112	572017002703	NPART	0.9284	57.66	2.44	0.191	0.439	0.444	0.067	1346.73	111.54
113	573012001102	NPART	0.9971	59.10	0.80	0.484	0.039	0.170	0.008	707.95	9.28
114	574018001602	NPART	0.9713	63.05	2.61	0.412	0.147	0.154	0.019	750.30	32.13

PRISM Output
Non-Participant
Post-Treatment
Louisville Station

S	HOUSEID	LABEL	R2	TAU_H	SE_TAUH	BASE	SE_BASE	HSLOP	SE_HSLOP	POSTNAC	SE_NAC
115	574018025100	NPART	0.9791	75.00	3.37	0.531	0.284	0.134	0.010	1105.54	31.32
116	580002013800	NPART	0.9932	68.77	1.81	0.360	0.093	0.127	0.008	788.27	15.20
117	585018022900	NPART	0.9857	67.65	2.30	0.689	0.095	0.104	0.009	763.58	17.50
118	590011001500	NPART	0.9954	66.33	1.11	0.333	0.061	0.131	0.006	724.30	12.09
119	590011001605	NPART	0.9925	69.32	1.60	-0.035	0.072	0.099	0.005	512.21	12.59
120	590011007000	NPART	0.9910	71.74	2.09	0.324	0.196	0.198	0.012	1288.66	29.19
121	590017004000	NPART	0.9941	66.30	1.29	0.155	0.075	0.142	0.007	711.40	14.87

Appendix E - SAS Statistical Output

Participant
Full Sample

Univariate Procedure

Variable=DIFFNAC

Moments				Quantiles(Def=5)			
N	126	Sum Wgts	126	100% Max	896.1	99%	636.35
Mean	163.0139	Sum	20539.75	75% Q3	282.19	95%	468.79
Std Dev	201.0589	Variance	40424.68	50% Med	163.625	90%	418.85
Skewness	0.09665	Kurtosis	1.277538	25% Q1	52.72	10%	-76.49
USS	8401350	CSS	5053085	0% Min	-461.71	5%	-190.47
CV	123.3385	Std Mean	17.91175			1%	-288.23
T:Mean=0	9.100947	Pr>|T|	0.0001	Range	1357.81		
Num ^= 0	126	Num > 0	105	Q3-Q1	229.47		
M(Sign)	42	Pr>=|M|	0.0001	Mode	-461.71		
Sgn Rank	3055.5	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
-461.71(	55)	510.93(	108)
-288.23(	28)	532.24(	52)
-282.42(	13)	556.42(	34)
-249.12(	113)	636.35(	95)
-200.61(	12)	896.1(	57)

Univariate Procedure

Variable=PRENAC

Moments				Quantiles(Def=5)			
N	114	Sum Wgts	114	100% Max	1847.32	99%	1606.17
Mean	877.7175	Sum	100059.8	75% Q3	1110.56	95%	1453.02
Std Dev	313.3579	Variance	98193.15	50% Med	833.025	90%	1290.73
Skewness	0.497992	Kurtosis	-0.08676	25% Q1	672.36	10%	485.47
USS	98920068	CSS	11095826	0% Min	269.82	5%	421.04
CV	35.70145	Std Mean	29.34865			1%	344.58
T:Mean=0	29.90657	Pr>|T|	0.0001	Range	1577.5		
Num ^= 0	114	Num > 0	114	Q3-Q1	438.2		
M(Sign)	57	Pr>=|M|	0.0001	Mode	808.23		
Sgn Rank	3277.5	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
269.82(	3)	1463.93(	113)
344.58(	29)	1557.72(	70)
388.56(	7)	1577.24(	82)
415.48(	22)	1606.17(	49)
418.53(	40)	1847.32(	83)

Participant
Truncated Sample

Univariate Procedure

Variable=POSTNAC

Moments				Quantiles(Def=5)			
N	114	Sum Wgts	114	100% Max	1634.6	99%	1435.5
Mean	708.6424	Sum	80785.23	75% Q3	846.73	95%	1229.14
Std Dev	273.569	Variance	74840.01	50% Med	662.265	90%	1079.05
Skewness	0.823937	Kurtosis	0.634974	25% Q1	513.45	10%	403.5
USS	65704758	CSS	8456921	0% Min	222.28	5%	344.81
CV	38.60467	Std Mean	25.62209			1%	255.25
T:Mean=0	27.65748	Pr>|T|	0.0001	Range	1412.32		
Num ^= 0	114	Num > 0	114	Q3-Q1	333.28		
M(Sign)	57	Pr>=|M|	0.0001	Mode	627.08		
Sgn Rank	3277.5	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
222.28(	3)	1238.62(	36)
255.25(	29)	1257.81(	70)
274.36(	88)	1431.65(	20)
302.47(	78)	1435.5(	82)
318.89(	7)	1634.6(	83)

Participant
Truncated Sample

Univariate Procedure

Variable=DIFFNAC

Moments

Quantiles(Def=5)

N	114	Sum Wgts	114	100% Max	485.76	99%	468.79
Mean	169.0752	Sum	19274.57	75% Q3	272.92	95%	436.62
Std Dev	149.5799	Variance	22374.16	50% Med	167.9	90%	392.49
Skewness	0.078662	Kurtosis	-0.50428	25% Q1	69.67	10%	-31.81
USS	5787131	CSS	2528280	0% Min	-167.11	5%	-76.49
CV	88.46949	Std Mean	14.00944			1%	-165.98
T:Mean=0	12.06866	Pr>|T|	0.0001	Range	652.87		
Num ^= 0	114	Num > 0	100	Q3-Q1	203.25		
M(Sign)	43	Pr>=|M|	0.0001	Mode	-167.11		
Sgn Rank	2932.5	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
-167.11(	26)	440.09(	87)
-165.98(	39)	442.8(	16)
-113.48(	59)	448.36(	60)
-97.53(	37)	468.79(	74)
-77.63(	13)	485.76(	107)

Univariate Statistics for Changes in Mean Normalized Annual Consumption
 Non-Participant
 Full Sample

Univariate Procedure

Variable=DIFFNAC

Moments

Quantiles(Def=5)

N	118	Sum Wgts	118	100% Max	417.89	99%	394.54
Mean	-0.30195	Sum	-35.63	75% Q3	58.56	95%	206.89
Std Dev	161.9079	Variance	26214.18	50% Med	-2.8	90%	142.44
Skewness	-3.49955	Kurtosis	28.16627	25% Q1	-45.66	10%	-115.83
USS	3067070	CSS	3067059	0% Min	-1228.98	5%	-197.05
CV	-53620.9	Std Mean	14.90483			1%	-321.37
T:Mean=0	-0.02026	Pr>|T|	0.9839	Range	1646.87		
Num ^= 0	118	Num > 0	58	Q3-Q1	104.22		
M(Sign)	-1	Pr>=|M|	0.9267	Mode	-1228.98		
Sgn Rank	181.5	Pr>=|S|	0.6280				

Extremes

Lowest	Obs	Highest	Obs
-1228.98(	118)	233.7(	55)
-321.37(	103)	290.08(	53)
-236.62(	116)	293.86(	33)
-225.55(	104)	394.54(	83)
-220.05(	102)	417.89(	106)

Non-Participant
Truncated Sample

Univariate Procedure

Variable=PRENAC

Moments				Quantiles(Def=5)			
N	112	Sum Wgts	112	100% Max	1601.36	99%	1580.71
Mean	787.9088	Sum	88245.79	75% Q3	986.345	95%	1368.29
Std Dev	304.7559	Variance	92876.14	50% Med	718.49	90%	1221.47
Skewness	0.612018	Kurtosis	-0.07108	25% Q1	572.68	10%	440.62
USS	79838889	CSS	10309251	0% Min	155.36	5%	344.88
CV	38.67908	Std Mean	28.79672			1%	262.88
T:Mean=0	27.36106	Pr>|T|	0.0001	Range	1446		
Num ^= 0	112	Num > 0	112	Q3-Q1	413.665		
M(Sign)	56	Pr>=|M|	0.0001	Mode	767.03		
Sgn Rank	3164	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
155.36(	70)	1369.96(	55)
262.88(	36)	1430.75(	5)
269.67(	91)	1443.83(	90)
331.43(	110)	1580.71(	30)
338.49(	49)	1601.36(	95)

Non-Participant
Truncated Sample

Univariate Procedure

Variable=POSTNAC

Moments				Quantiles(Def=5)			
N	112	Sum Wgts	112	100% Max	1618.16	99%	1559.66
Mean	786.8521	Sum	88127.44	75% Q3	996.79	95%	1351.98
Std Dev	294.9265	Variance	86981.65	50% Med	736.915	90%	1179.48
Skewness	0.549836	Kurtosis	0.014334	25% Q1	578.91	10%	452.68
USS	78998228	CSS	9654963	0% Min	133.52	5%	365.19
CV	37.48182	Std Mean	27.86794			1%	268.11
T:Mean=0	28.23503	Pr>|T|	0.0001	Range	1484.64		
Num ^= 0	112	Num > 0	112	Q3-Q1	417.88		
M(Sign)	56	Pr>=|M|	0.0001	Mode	133.52		
Sgn Rank	3164	Pr>=|S|	0.0001				

Extremes

Lowest	Obs	Highest	Obs
133.52(	70)	1371.69(	41)
268.11(	36)	1392.92(	13)
302.56(	85)	1479.86(	30)
342.32(	110)	1559.66(	90)
357.35(	49)	1618.16(	95)

Univariate Procedure

Variable=DIFFNAC

Moments				Quantiles(Def=5)			
N	112	Sum Wgts	112	100% Max	233.7	99%	206.89
Mean	1.056696	Sum	118.35	75% Q3	56.225	95%	148.35
Std Dev	92.63318	Variance	8580.906	50% Med	-4.285	90%	127.44
Skewness	-0.10268	Kurtosis	0.454219	25% Q1	-45.135	10%	-107.71
USS	952605.6	CSS	952480.6	0% Min	-236.62	5%	-179.08
CV	8766.3	Std Mean	8.753013			1%	-225.55
T:Mean=0	0.120724	Pr>|T|	0.9041	Range	470.32		
Num ^= 0	112	Num > 0	54	Q3-Q1	101.36		
M(Sign)	-2	Pr>=|M|	0.7770	Mode	-236.62		
Sgn Rank	68	Pr>=|S|	0.8445				

Extremes

Lowest	Obs	Highest	Obs
-236.62(	111)	193.43(	5)
-225.55(	100)	195.55(	9)
-220.05(	99)	200.9(	78)
-197.05(	96)	206.89(	12)
-181.6(	105)	233.7(	53)

Appendix F - BENCOST Cost-Effectiveness Output

Conservation Improvement Program (CIP)
 BENECOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: Western Kentucky Gas
 Project WKG Cares

Input Data

1) Retail Rate (\$/MCF) =	\$4.87
Escalation Rate =	3.00%
2) Commodity Cost (\$/MCF) =	\$3.81
Escalation Rate =	3.00%
3) Demand Cost (\$/Unit/Yr) =	\$127.59
Escalation Rate =	3.00%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.03
Escalation Rate =	3.00%
6) Environmental Damage Factor =	\$0.2700
Escalation Rate =	3.00%
7) Total Sales =	49,693,865
Growth Rate =	4.40%
8) Total Customers =	173,958
Growth Rate =	2.70%
9) Utility Discount Rate =	10.00%
10) Social Discount Rate =	3.00%
11) General Input Data Year =	1998
12) Project Analysis Year =	1998
13) Effective Fed & State Income Tax Rate =	38.00%
14) Net Operating Income Before Taxes as % Total Operating Income	5.80%

15) Utility Project Costs	
Administrative Costs =	\$0
Direct Operating Costs =	\$246,383
Incentive Costs =	\$0
Total Utility Project Costs =	\$246,383
16) Direct Participant Costs (\$/Part.) =	\$0
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	3.00%
18) Project Life (Years) =	20
19) Avg. Energy Reduction (Project) =	
20) Avg. Consumption (MCF/Part.) =	
21) Avg. MCF/Part. Saved =	16.8
	.00
22) Number of Participants =	161
	0
23) Incentive/Participant =	\$0
	\$0

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Cost Summary

Utility Cost per Participant (First Year) =	\$1,530.33
Total Energy Reduction (MCF)	43,277
Societal Cost per MCF	\$5.69
Cost per Participant per MCF (First Year) =	\$91.09

Test Results

	<u>NPV</u>	<u>B/C</u>
Cost Comparison Test	(\$80,662)	0.66
Revenue Requirements Test	(\$87,314)	0.65
Societal Benefit Test	\$41,711	1.17
Participant Test	\$151,232	681.35

Table 1
Cost Comparison Test

This test compares the cost of energy saved to the total cost of saving that same amount of energy.

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Cost of Energy Saved						Project Cost			Cost of Energy Saved Less Project Cost (J)
	Total Energy Reduction (A)	Commodity Cost (B)	Variable O & M Cost Savings (C)	Peak Demand Reduction (D)	Demand Cost (E)	Annual Cost of Energy Saved (F)	Utility Project Costs (G)	Lost Margin (H)	Annual Project Costs (I)	
1998	2,705	\$3.81	\$81	27.05	\$127.59	\$13,837	\$246,383	(650)	\$245,732	(\$231,895)
1999	2,705	3.92	84	27.05	131.42	14,253	0	(670)	(670)	14,923
2000	2,705	4.04	86	27.05	135.36	14,680	0	(690)	(690)	15,370
2001	2,705	4.16	89	27.05	139.42	15,121	0	(711)	(711)	15,831
2002	2,705	4.29	91	27.05	143.60	15,574	0	(732)	(732)	16,306
2003	2,705	4.42	94	27.05	147.91	16,041	0	(754)	(754)	16,795
2004	2,705	4.55	97	27.05	152.35	16,523	0	(777)	(777)	17,299
2005	2,705	4.69	100	27.05	156.92	17,018	0	(800)	(800)	17,818
2006	2,705	4.83	103	27.05	161.63	17,529	0	(824)	(824)	18,353
2007	2,705	4.97	106	27.05	166.48	18,055	0	(849)	(849)	18,903
2008	2,705	5.12	109	27.05	171.47	18,596	0	(874)	(874)	19,471
2009	2,705	5.27	112	27.05	176.61	19,154	0	(900)	(900)	20,055
2010	2,705	5.43	116	27.05	181.91	19,729	0	(927)	(927)	20,656
2011	2,705	5.60	119	27.05	187.37	20,321	0	(955)	(955)	21,276
2012	2,705	5.76	123	27.05	192.99	20,930	0	(984)	(984)	21,914
2013	2,705	5.94	126	27.05	198.78	21,558	0	(1,013)	(1,013)	22,572
2014	2,705	6.11	130	27.05	204.74	22,205	0	(1,044)	(1,044)	23,249
2015	2,705	6.30	134	27.05	210.89	22,871	0	(1,075)	(1,075)	23,946
2016	2,705	6.49	138	27.05	217.21	23,557	0	(1,107)	(1,107)	24,665
2017	2,705	6.68	142	27.05	223.73	24,264	0	(1,141)	(1,141)	25,405
Total =	43,277					\$371,818	\$246,383	(\$17,478)	\$233,272	\$45,649
NPV =						159,069	246,383	(6,652)	239,731	(80,662)
Total NPV =										(\$80,662)
Benefit/Cost Ratio =										0.66

- (A) = Energy Reduction/Part. (21) x Participants (22)
- (B) = Commodity Cost (2)
- (C) = (A) x Variable O&M (5)
- (D) = (A) x Peak Reduction Factor (4)
- (E) = Demand Cost (3)

- (F) = (A)x(B) + (C) + (D)x(E)
- (G) = Total Utility Project Costs (15)
- (H) = [1 - Effective Tax Rate (13) x % Net Income Before Taxes (14)] x [(A) x Retail Rate (1) - (F)]
- (I) = (G) + (H)
- (J) = (F) - (I)

Table 2
Revenue Requirements Test

This test quantifies incremental decreases and increases to revenue requirements as a direct result of the project.

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Decreases				Increases		Net Change (G)
	Total Energy Savings (A)	Variable O & M Cost Savings (B)	Peak Demand Savings (C)	Annual Total Decrease (D)	Utility Program Costs (E)	Annual Total Increase (F)	
1998	\$10,305	\$81	\$3,451	\$13,837	\$246,383	\$246,383	(\$232,545)
1999	10,614	84	3,555	14,253			14,253
2000	10,933	86	3,661	14,680	0	0	14,680
2001	11,261	89	3,771	15,121	0	0	15,121
2002	11,599	91	3,884	15,574	0	0	15,574
2003	11,947	94	4,001	16,041	0	0	16,041
2004	12,305	97	4,121	16,523	0	0	16,523
2005	12,674	100	4,244	17,018	0	0	17,018
2006	13,054	103	4,372	17,529	0	0	17,529
2007	13,446	106	4,503	18,055	0	0	18,055
2008	13,849	109	4,638	18,596	0	0	18,596
2009	14,265	112	4,777	19,154	0	0	19,154
2010	14,693	116	4,920	19,729	0	0	19,729
2011	15,134	119	5,068	20,321	0	0	20,321
2012	15,588	123	5,220	20,930	0	0	20,930
2013	16,055	126	5,377	21,558	0	0	21,558
2014	16,537	130	5,538	22,205	0	0	22,205
2015	17,033	134	5,704	22,871	0	0	22,871
2016	17,544	138	5,875	23,557	0	0	23,557
2017	18,070	142	6,051	24,264	0	0	24,264
Total =	\$276,907	\$2,180	\$92,731	\$371,818	\$246,383	\$246,383	\$125,436
NPV =	118,465	933	39,672	159,069	246,383	246,383	(87,314)
Total NPV =		(\$87,314)					
Benefit/Cost Ratio =		<u>0.65</u>					

(A) = Energy Reduction/Part. (21) x Participants (22) x Commodity Cost (2)
 (B) = Energy Reduction/Part. (21) x Participants (22) x Variable O&M (5)
 (C) = Energy Reduction/Part. (21) x Participants (22) x Peak Reduction Factor (4) x Demand Cost (3)
 (D) = (A) + (B) + (C)

(E) = Total Utility Project Costs (15)
 (F) = (E)
 (G) = (D) - (F)

Table 3
Societal Benefit Test

This test attempts to quantify benefits and costs that accrue to the utility, participants, other ratepayers, and society

Company: Western Kentucky Gas
Project: WKG Cares

Year	Decreases					Increases				Net Change (J)
	Total Energy Savings (A)	Variable O & M Cost Savings (B)	Total Demand Savings (C)	Avoided Environmental Damage Costs (D)	Annual Total Decrease (E)	Utility Program Costs (F)	Total Participants' Costs (G)	Incentives Paid to Participants (H)	Annual Total Increase (I)	
1998	\$10,305	\$81	\$3,451	\$730	\$14,568	\$246,383	\$0	\$0	\$246,383	(\$231,815)
1999	10,614	84	3,555	752	15,005	0	0	0	0	15,005
2000	10,933	86	3,661	775	15,455	0	0	0	0	15,455
2001	11,261	89	3,771	798	15,919	0	0	0	0	15,919
2002	11,599	91	3,884	822	16,396	0	0	0	0	16,396
2003	11,947	94	4,001	847	16,888	0	0	0	0	16,888
2004	12,305	97	4,121	872	17,395	0	0	0	0	17,395
2005	12,674	100	4,244	898	17,917	0	0	0	0	17,917
2006	13,054	103	4,372	925	18,454	0	0	0	0	18,454
2007	13,446	106	4,503	953	19,008	0	0	0	0	19,008
2008	13,849	109	4,638	981	19,578	0	0	0	0	19,578
2009	14,265	112	4,777	1,011	20,165	0	0	0	0	20,165
2010	14,693	116	4,920	1,041	20,770	0	0	0	0	20,770
2011	15,134	119	5,068	1,072	21,393	0	0	0	0	21,393
2012	15,588	123	5,220	1,105	22,035	0	0	0	0	22,035
2013	16,055	126	5,377	1,138	22,696	0	0	0	0	22,696
2014	16,537	130	5,538	1,172	23,377	0	0	0	0	23,377
2015	17,033	134	5,704	1,207	24,078	0	0	0	0	24,078
2016	17,544	138	5,875	1,243	24,801	0	0	0	0	24,801
2017	18,070	142	6,051	1,281	25,545	0	0	0	0	25,545
Total =	\$276,907	\$2,180	\$92,731	\$14,720	\$391,442	\$246,383	\$0	\$0	\$246,383	\$47,258
NPV =	206,106	1,623	69,021	11,344	288,094	246,383	0	0	246,383	41,711
Total NPV =		\$41,711								
Benefit/Cost Ratio =		<u>1.17</u>								

(A) = Energy Reduction/Part. (21) x Participants (22) x Commodity Cost (2)

(B) = Energy Reduction/Part. (21) x Participants (22) x Variable O&M (5)

(C) = Energy Reduction/Part. (21) x Participants (22) x Peak Reduction Factor (4) x Demand Cost (3)

(D) = Energy Reduction/Part. (21) x Participants (22) x Environmental Damage Factor (6)

(E) = (A) + (B) + (C) + (D)

(F) = Total Utility Project Costs (15)

(G) = Direct (16) x Other (17) Participant Costs x Participants (22)

(H) = Incentive Costs (15)

(I) = (F) + (G) - (H)

(J) = (E) - (I)

**Table 4
Participant Test**

This test quantifies the benefits and costs that accrue directly to the participant.

Company: Western Kentucky Gas
Project: WKG Cares

Year	Ratio of Part. to Total Customers (A)	Benefits						Costs					Annual Benefits Less Costs (M)
		Incentives Received (B)	Total Energy Reduction (C)	Retail Rate (D)	Peak Demand Reduction (E)	Demand Cost (F)	Total Annual Benefits (G)	Direct Part. Costs (H)	Other Part. Costs (I)	Utility Project Costs (J)	Lost Margin (K)	Total Annual Costs (L)	
1998	0.0009	\$0	2,705	\$4.87	27.05	\$127.59	\$13,176	\$0	\$0	\$228	(\$1)	\$227	\$12,948
1999	0.0009	0	2,705	5.02	27.05	131.42	13,571	0	0	0	-1	(1)	13,571
2000	0.0009	0	2,705	5.17	27.05	135.36	13,978	0	0	0	-1	(1)	13,978
2001	0.0009	0	2,705	5.32	27.05	139.42	14,397	0	0	0	-1	(1)	14,398
2002	0.0008	0	2,705	5.48	27.05	143.60	14,829	0	0	0	-1	(1)	14,829
2003	0.0008	0	2,705	5.65	27.05	147.91	15,274	0	0	0	-1	(1)	15,274
2004	0.0008	0	2,705	5.82	27.05	152.35	15,732	0	0	0	-1	(1)	15,732
2005	0.0008	0	2,705	5.99	27.05	156.92	16,204	0	0	0	-1	(1)	16,204
2006	0.0007	0	2,705	6.17	27.05	161.63	16,690	0	0	0	-1	(1)	16,690
2007	0.0007	0	2,705	6.35	27.05	166.48	17,190	0	0	0	-1	(1)	17,191
2008	0.0007	0	2,705	6.54	27.05	171.47	17,706	0	0	0	-1	(1)	17,706
2009	0.0007	0	2,705	6.74	27.05	176.61	18,237	0	0	0	-1	(1)	18,238
2010	0.0007	0	2,705	6.94	27.05	181.91	18,784	0	0	0	-1	(1)	18,785
2011	0.0007	0	2,705	7.15	27.05	187.37	19,347	0	0	0	-1	(1)	19,348
2012	0.0006	0	2,705	7.37	27.05	192.99	19,928	0	0	0	-1	(1)	19,928
2013	0.0006	0	2,705	7.59	27.05	198.78	20,525	0	0	0	-1	(1)	20,526
2014	0.0006	0	2,705	7.81	27.05	204.74	21,141	0	0	0	-1	(1)	21,142
2015	0.0006	0	2,705	8.05	27.05	210.89	21,775	0	0	0	-1	(1)	21,776
2016	0.0006	0	2,705	8.29	27.05	217.21	22,428	0	0	0	-1	(1)	22,429
2017	0.0006	0	2,705	8.54	27.05	223.73	23,101	0	0	0	-1	(1)	23,102
Total =			54,096				\$354,012	\$0	\$0	\$228		\$216	\$353,797
NPV =							\$151,453.80	0	0	228		222	151,232
Total NPV =													\$151,232
Benefit/Cost Ratio =													<u>681.35</u>

- (A) = Participants (22)/Total Customers (8)
- (B) = Incentive Costs (15)
- (C) = Energy Reduction/Part. (21) x Participants (22)
- (D) = Retail Rate (1)
- (E) = (A) x Peak Reduction Factor (4)
- (F) = Demand Cost (3)
- (G) = (B) + (C)x(D) + (E)x(F)x(A)

- (H) = Direct Participants Costs (16) x Participants (22)
- (I) = Other Participant Costs (17) x Participants (22)
- (J) = (A) x Total Utility Project Costs (15)
- (K) = (A) x [1 - Effective Tax Rate (13) x % Net Income Before Taxes (14)] x [(C) x ((D) - Commodity Cost (2)) - (A) x (E) x (F)]
- (L) = (H) + (I) + (J) + (K)
- (M) = (G) - (L)

Conservation Improvement Program (CIP)
 BENECOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: Western Kentucky Gas
 Project W/KG Gas

Input Data

1) Retail Rate (\$/MCF) =	\$4.87	15) Utility Project Costs	
Escalation Rate =	3.00%	Administrative Costs =	\$0
2) Commodity Cost (\$/MCF) =	\$3.81	Direct Operating Costs =	\$246,383
Escalation Rate =	3.00%	Incentive Costs =	\$0
3) Demand Cost (\$/Unit/Yr) =	\$127.50	Total Utility Project Costs =	\$246,383
Escalation Rate =	3.00%		
4) Peak Reduction Factor =	1.00%		
5) Variable O&M (\$/MCF) =	\$0.03	16) Direct Participant Costs (\$/Part.) =	\$0
Escalation Rate =	3.00%	17) Other Participant Costs (Annual \$/Part.) =	\$0.00
6) Environmental Damage Factor =	\$0.0000	Escalation Rate =	3.00%
Escalation Rate =	3.00%	18) Project Life (Years) =	20
7) Total Sales =	49,693,855	19) Avg. Energy Reduction (Project) =	
Growth Rate =	4.40%	20) Avg. Consumption (MCF/Part.) =	
8) Total Customers =	173,958	21) Avg. MCF/Part. Saved =	16.8
Growth Rate =	2.70%		0.0
9) Utility Discount Rate =	10.00%	22) Number of Participants =	161
10) Social Discount Rate =	3.00%		0
11) General Input Data Year =	1998	23) Incentive/Participant =	\$0
12) Project Analysis Year =	1998		\$0
13) Effective Fed & State Income Tax Rate =	38.00%		
14) Not Operating Income Before Taxes as % Total Operating Income	5.80%		

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Cost Summary

Utility Cost per Participant (First Year) =	\$1,530.33
Total Energy Reduction (MCF)	43,277
Societal Cost per MCF	\$5.69
Cost per Participant per MCF (First Year) =	\$91.09

Test Results

	<u>NPV</u>	<u>B/C</u>
Cost Comparison Test	(\$80,662)	0.66
Revenue Requirements Test	(\$87,314)	0.65
Societal Benefit Test	\$30,367	1.12
Participant Test	\$151,232	681.35

**Table 1
Cost Comparison Test**

This test compares the cost of energy saved to the total cost of saving that same amount of energy.

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Cost of Energy Saved						Project Cost			Cost of Energy Saved Less Project Cost (J)
	Total Energy Reduction (A)	Commodity Cost (B)	Variable O & M Cost Savings (C)	Peak Demand Reduction (D)	Demand Cost (E)	Annual Cost of Energy Saved (F)	Utility Project Costs (G)	Lost Margin (H)	Annual Project Costs (I)	
1998	2,705	\$3.81	\$81	27.05	\$127.59	\$13,837	\$246,383	(650)	\$245,732	(\$231,895)
1999	2,705	3.92	84	27.05	131.42	14,253	0	(670)	(670)	14,923
2000	2,705	4.04	86	27.05	135.36	14,680	0	(690)	(690)	15,370
2001	2,705	4.16	89	27.05	139.42	15,121	0	(711)	(711)	15,831
2002	2,705	4.29	91	27.05	143.60	15,574	0	(732)	(732)	16,306
2003	2,705	4.42	94	27.05	147.91	16,041	0	(754)	(754)	16,795
2004	2,705	4.55	97	27.05	152.35	16,523	0	(777)	(777)	17,299
2005	2,705	4.69	100	27.05	156.92	17,018	0	(800)	(800)	17,818
2006	2,705	4.83	103	27.05	161.63	17,529	0	(824)	(824)	18,353
2007	2,705	4.97	106	27.05	166.48	18,055	0	(849)	(849)	18,903
2008	2,705	5.12	109	27.05	171.47	18,596	0	(874)	(874)	19,471
2009	2,705	5.27	112	27.05	176.61	19,154	0	(900)	(900)	20,055
2010	2,705	5.43	116	27.05	181.91	19,729	0	(927)	(927)	20,656
2011	2,705	5.60	119	27.05	187.37	20,321	0	(955)	(955)	21,276
2012	2,705	5.76	123	27.05	192.99	20,930	0	(984)	(984)	21,914
2013	2,705	5.94	126	27.05	198.78	21,558	0	(1,013)	(1,013)	22,572
2014	2,705	6.11	130	27.05	204.74	22,205	0	(1,044)	(1,044)	23,249
2015	2,705	6.30	134	27.05	210.89	22,871	0	(1,075)	(1,075)	23,946
2016	2,705	6.49	138	27.05	217.21	23,557	0	(1,107)	(1,107)	24,665
2017	2,705	6.68	142	27.05	223.73	24,264	0	(1,141)	(1,141)	25,405
Total =	43,277					\$371,818	\$246,383	(\$17,478)	\$233,272	\$45,649
NPV =						159,069	246,383	(6,652)	239,731	(80,662)
Total NPV =										(\$80,662)
Benefit/Cost Ratio =										0.66

- (A) = Energy Reduction/Part. (21) x Participants (22)
- (B) = Commodity Cost (2)
- (C) = (A) x Variable O&M (5)
- (D) = (A) x Peak Reduction Factor (4)
- (E) = Demand Cost (3)

- (F) = (A)x(B) + (C) + (D)x(E)
- (G) = Total Utility Project Costs (15)
- (H) = [1 - Effective Tax Rate (13) x % Net Income Before Taxes (14)] x [(A) x Retail Rate (1) - (F)]
- (I) = (G) + (H)
- (J) = (F) - (I)

Table 2
Revenue Requirements Test

This test quantifies incremental decreases and increases to revenue requirements as a direct result of the project.

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Decreases				Increases		Net Change (G)
	Total Energy Savings (A)	Variable O & M Cost Savings (B)	Peak Demand Savings (C)	Annual Total Decrease (D)	Utility Program Costs (E)	Annual Total Increase (F)	
1998	\$10,305	\$81	\$3,451	\$13,837	\$246,383	\$246,383	(\$232,545)
1999	10,614	84	3,555	14,253			14,253
2000	10,933	86	3,661	14,680	0	0	14,680
2001	11,261	89	3,771	15,121	0	0	15,121
2002	11,599	91	3,884	15,574	0	0	15,574
2003	11,947	94	4,001	16,041	0	0	16,041
2004	12,305	97	4,121	16,523	0	0	16,523
2005	12,674	100	4,244	17,018	0	0	17,018
2006	13,054	103	4,372	17,529	0	0	17,529
2007	13,446	106	4,503	18,055	0	0	18,055
2008	13,849	109	4,638	18,596	0	0	18,596
2009	14,265	112	4,777	19,154	0	0	19,154
2010	14,693	116	4,920	19,729	0	0	19,729
2011	15,134	119	5,068	20,321	0	0	20,321
2012	15,588	123	5,220	20,930	0	0	20,930
2013	16,055	126	5,377	21,558	0	0	21,558
2014	16,537	130	5,538	22,205	0	0	22,205
2015	17,033	134	5,704	22,871	0	0	22,871
2016	17,544	138	5,875	23,557	0	0	23,557
2017	18,070	142	6,051	24,264	0	0	24,264
Total =	\$276,907	\$2,180	\$92,731	\$371,818	\$246,383	\$246,383	\$125,436
NPV =	118,465	933	39,672	159,069	246,383	246,383	(87,314)
Total NPV =		(\$87,314)					
Benefit/Cost Ratio =		0.65					

(A) = Energy Reduction/Part. (21) x Participants (22) x Commodity Cost (2)
 (B) = Energy Reduction/Part. (21) x Participants (22) x Variable O&M (5)
 (C) = Energy Reduction/Part. (21) x Participants (22) x Peak Reduction Factor (4) x Demand Cost (3)
 (D) = (A) + (B) + (C)

(E) = Total Utility Project Costs (15)
 (F) = (E)
 (G) = (D) - (F)

Table 3
Societal Benefit Test

This test attempts to quantify benefits and costs that accrue to the utility, participants, other ratepayers, and society

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Decreases					Increases				Net Change (J)
	Total Energy Savings (A)	Variable O & M Cost Savings (B)	Total Demand Savings (C)	Avoided Environmental Damage Costs (D)	Annual Total Decrease (E)	Utility Program Costs (F)	Total Participants' Costs (G)	Incentives Paid to Participants (H)	Annual Total Increase (I)	
1998	\$10,305	\$81	\$3,451	\$0	\$13,837	\$246,383	\$0	\$0	\$246,383	(\$232,545)
1999	10,614	84	3,555	0	14,253	0	0	0	0	14,253
2000	10,933	86	3,661	0	14,680	0	0	0	0	14,680
2001	11,261	89	3,771	0	15,121	0	0	0	0	15,121
2002	11,599	91	3,884	0	15,574	0	0	0	0	15,574
2003	11,947	94	4,001	0	16,041	0	0	0	0	16,041
2004	12,305	97	4,121	0	16,523	0	0	0	0	16,523
2005	12,674	100	4,244	0	17,018	0	0	0	0	17,018
2006	13,054	103	4,372	0	17,529	0	0	0	0	17,529
2007	13,446	106	4,503	0	18,055	0	0	0	0	18,055
2008	13,849	109	4,638	0	18,596	0	0	0	0	18,596
2009	14,265	112	4,777	0	19,154	0	0	0	0	19,154
2010	14,693	116	4,920	0	19,729	0	0	0	0	19,729
2011	15,134	119	5,068	0	20,321	0	0	0	0	20,321
2012	15,588	123	5,220	0	20,930	0	0	0	0	20,930
2013	16,055	126	5,377	0	21,558	0	0	0	0	21,558
2014	16,537	130	5,538	0	22,205	0	0	0	0	22,205
2015	17,033	134	5,704	0	22,871	0	0	0	0	22,871
2016	17,544	138	5,875	0	23,557	0	0	0	0	23,557
2017	18,070	142	6,051	0	24,264	0	0	0	0	24,264
Total =	\$276,907	\$2,180	\$92,731	\$0	\$371,818	\$246,383	\$0	\$0	\$246,383	\$32,538
NPV =	206,106	1,623	69,021	0	276,750	246,383	0	0	246,383	30,367
Total NPV =		\$30,367								
Benefit/Cost Ratio =		1.12								

- (A) = Energy Reduction/Part. (21) x Participants (22) x Commodity Cost (2)
- (B) = Energy Reduction/Part. (21) x Participants (22) x Variable O&M (5)
- (C) = Energy Reduction/Part. (21) x Participants (22) x Peak Reduction Factor (4) x Demand Cost (3)
- (D) = Energy Reduction/Part. (21) x Participants (22) x Environmental Damage Factor (6)
- (E) = (A) + (B) + (C) + (D)

- (F) = Total Utility Project Costs (15)
- (G) = Direct (16) x Other (17) Participant Costs x Participants (22)
- (H) = Incentive Costs (15)
- (I) = (F) + (G) - (H)
- (J) = (E) - (I)

**Table 4
Participant Test**

This test quantifies the benefits and costs that accrue directly to the participant.

Company: **Western Kentucky Gas**
Project: **WKG Cares**

Year	Ratio of Part. to Total Customers (A)	Benefits						Costs					Annual Benefits Less Costs (M)
		Incentives Received (B)	Total Energy Reduction (C)	Retail Rate (D)	Peak Demand Reduction (E)	Demand Cost (F)	Total Annual Benefits (G)	Direct Part. Costs (H)	Other Part. Costs (I)	Utility Project Costs (J)	Lost Margin (K)	Total Annual Costs (L)	
1998	0.0009	\$0	2,705	\$4.87	27.05	\$127.59	\$13,176	\$0	\$0	\$228	(\$1)	\$227	\$12,948
1999	0.0009	0	2,705	5.02	27.05	131.42	13,571	0	0	0	-1	(1)	13,571
2000	0.0009	0	2,705	5.17	27.05	135.36	13,978	0	0	0	-1	(1)	13,978
2001	0.0009	0	2,705	5.32	27.05	139.42	14,397	0	0	0	-1	(1)	14,398
2002	0.0008	0	2,705	5.48	27.05	143.60	14,829	0	0	0	-1	(1)	14,829
2003	0.0008	0	2,705	5.65	27.05	147.91	15,274	0	0	0	-1	(1)	15,274
2004	0.0008	0	2,705	5.82	27.05	152.35	15,732	0	0	0	-1	(1)	15,732
2005	0.0008	0	2,705	5.99	27.05	156.92	16,204	0	0	0	-1	(1)	16,204
2006	0.0007	0	2,705	6.17	27.05	161.63	16,690	0	0	0	-1	(1)	16,690
2007	0.0007	0	2,705	6.35	27.05	166.48	17,190	0	0	0	-1	(1)	17,191
2008	0.0007	0	2,705	6.54	27.05	171.47	17,706	0	0	0	-1	(1)	17,706
2009	0.0007	0	2,705	6.74	27.05	176.61	18,237	0	0	0	-1	(1)	18,238
2010	0.0007	0	2,705	6.94	27.05	181.91	18,784	0	0	0	-1	(1)	18,785
2011	0.0007	0	2,705	7.15	27.05	187.37	19,347	0	0	0	-1	(1)	19,348
2012	0.0006	0	2,705	7.37	27.05	192.99	19,928	0	0	0	-1	(1)	19,928
2013	0.0006	0	2,705	7.59	27.05	198.78	20,525	0	0	0	-1	(1)	20,526
2014	0.0006	0	2,705	7.81	27.05	204.74	21,141	0	0	0	-1	(1)	21,142
2015	0.0006	0	2,705	8.05	27.05	210.89	21,775	0	0	0	-1	(1)	21,776
2016	0.0006	0	2,705	8.29	27.05	217.21	22,428	0	0	0	-1	(1)	22,429
2017	0.0006	0	2,705	8.54	27.05	223.73	23,101	0	0	0	-1	(1)	23,102
Total =			54,096				\$354,012	\$0	\$0	\$228		\$216	\$353,797
NPV =							\$151,453.80	0	0	228		222	151,232
Total NPV =													\$151,232
Benefit/Cost Ratio =													681.35

- (A) = Participants (22)/Total Customers (8)
- (B) = Incentive Costs (15)
- (C) = Energy Reduction/Part. (21) x Participants (22)
- (D) = Retail Rate (1)
- (E) = (A) x Peak Reduction Factor (4)
- (F) = Demand Cost (3)
- (G) = (B) + (C)x(D) + (E)x(F)x(A)

- (H) = Direct Participants Costs (16) x Participants (22)
- (I) = Other Participant Costs (17) x Participants (22)
- (J) = (A) x Total Utility Project Costs (15)
- (K) = (A) x [1 - Effective Tax Rate (13) x % Net Income Before Taxes (14)] x [(C) x [(D) - Commodity Cost (2)] - (A) x (E) x (F)]
- (L) = (H) + (I) + (J) + (K)
- (M) = (G) - (L)

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20. b.
Witness: Smith and Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:
 - b. Explain why the Applied Energy Group, Inc. ("AEG") was retained to perform these evaluations, given Mr. Marks association with AEG.

Response:

The WKG CARES Collaborative requested proposals to provide process and impact evaluation from several companies and selected AEG as the best qualified. AEG has performed evaluations for over 400 DSM programs for utilities throughout the United States. AEG employed evaluation techniques, which relied upon pre- and post-treatment billing data. This evaluation technique, unlike engineering analysis, is based upon actual billing data before and after the customer participates in the program. This is considered to be the technique of choice in the industry because it is virtually free from subjective input. AEG's knowledge of the program through its previous work for the Collaborative was viewed as a positive since it provided the background that was required to conduct a comprehensive a evaluation in a timely and cost efficient manner.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 c
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:
 - c. Explain in detail why actual customer savings were not developed as part of the impact evaluation.

Response:

Actual customer savings were developed as stated on Page 12, Lines 2 – 6 of my testimony. Further detail is provided in the attachment entitled “Process and Impact Evaluation of Western Kentucky Gas WKG CARES Program” pages 49 – 57.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 d
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:

d. Explain how the impacts of the weather experienced during the evaluation period were taken into consideration when pre- and post-treatment consumption values were determined.

Response:

The PRISM software incorporates the impacts of weather in its methodology. A detailed technical discussion of how this is accomplished is contained on pages 43 – 46 of the attachment entitled “Process and Impact Evaluation of Western Kentucky Gas WKG CARES Program”.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 e
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:
- e. Provide the workpapers showing the calculation of the TRC, UCT, RIM, and PT values for the impact evaluation.

Response:

See Appendix F in the attachment entitled "Process and Impact Evaluation of Western Kentucky Gas WKG CARES Program". Note that the software we employed used slightly different names for the tests. In Appendix F, Table 1, the Cost Comparison test is the same as the UCT; Table 2 has the Revenue Requirement Test which is the same as the RIM; Table 3 has the Societal Benefits Test which is the same as the TRC; and Table 4 has the Participant test which is the same as the PT. When externalities are added to the Societal Benefits Test, it is equal to the Societal Test.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 f
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:
- f. Explain why the Societal Test is referenced on page 13 of the Marks Testimony instead of the TRC.

Response:

The name "Societal Test (without externalities)" has been substituted for TRC. There is no difference in how the benefit/cost ratios are calculated.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 g
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:

g. Provide the calculations and assumptions used to determine the environmental externality adder reflected in the Societal Test. Include an explanation as to why it was believed an environmental externality adder should have been included in the analysis.

Response:

By definition, the "Societal Test" includes externalities. Depending upon where the analysis is conducted, from a geographic and regulatory perspective, the value for the environmental externality can range from zero to a positive value. In order to provide the full range of potential benefits attributable to WKG CARES, we included a Societal Test with and without externalities (TRC). We were unable to find an estimate for externalities that had been used recently in Kentucky, so we utilized a value from a recent project we had done in Minnesota. We felt that Minnesota was a reasonable proxy for Kentucky.

The question of whether an environmental externality adder should have been included in the analysis can be answered as follows. AEG wanted to provide the Collaborative with a comprehensive evaluation. Including benefit/cost results with and without externalities provides a more comprehensive analysis than one which omitted externalities. By including externalities, AEG was not attempting to make a policy statement regarding their appropriateness for use in Kentucky.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 20 h
Witness: Marks

Data Request:

20. Concerning the process and impact evaluations of WKG CARES:

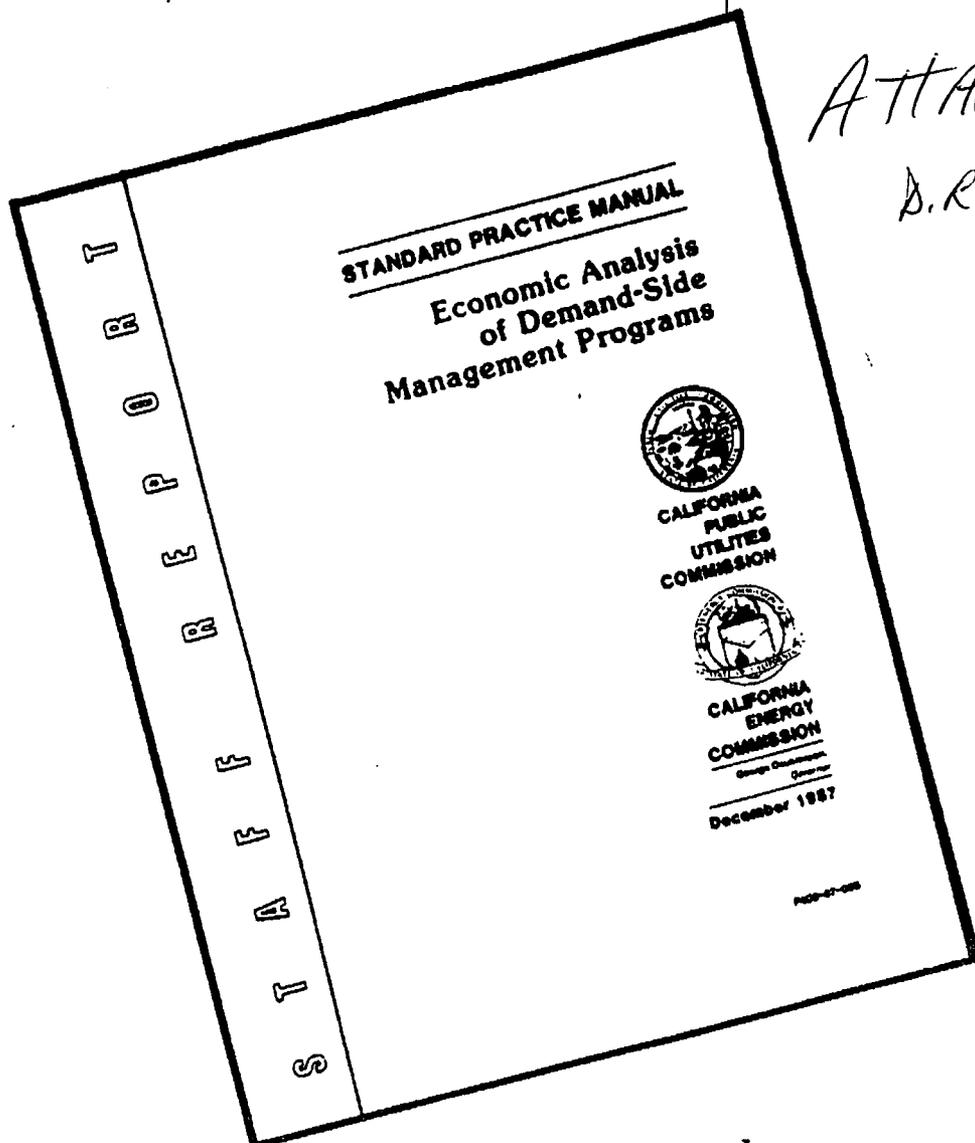
h. Did the calculation of the TRC during the impact evaluation include a determination of Western's lost revenues associated with WKG CARES? If no, explain why the exclusion of lost revenues would not skew the results of the TRC.

Response:

The TRC Test does not include lost revenues. Lost revenues are a transfer between the utility and the participant. A copy of the Test as defined by the California Commission is attached. Lost revenues are included in the RIM Test.

AMU

ATTACHMENT
D.R. Zoh.



California Energy Commission

Energy Efficiency and Local Assistance Division

• Don Schwartz, Project Leader

California Public Utilities Commission

Division of Ratepayer Advocates

• Don Schultz, Project Leader

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Chapter 4

TOTAL RESOURCE COST TEST¹

Definition: The Total Resource Cost Test measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utility's costs.

The test is applicable to conservation, load management, and fuel substitution programs. For fuel substitution programs, the test measures the net effect of the impacts from the fuel not chosen versus the impacts from the fuel that is chosen as a result of the program. TRC test results for fuel substitution programs should be viewed as a measure of the economic efficiency implications of the total energy supply system (gas and electric).

A variant on the TRC test is the Societal Test. The Societal Test differs from the TRC test in that it includes the effects of externalities (e.g. environmental, national security), excludes tax credit benefits, and uses a different (societal) discount rate.

Benefits and Costs: This test represents the combination of the effects of a program on both the customers participating and those not participating in a program. In a sense, it is the summation of the benefit and cost terms in the Participant and the Ratepayer Impact Measure tests, where the revenue (bill) change and the incentive terms intuitively cancel (except for the differences in net and gross savings).

The benefits calculated in the Total Resource Cost Test are the avoided supply costs--the reduction in transmission, distribution, generation, and capacity costs valued at marginal cost--for the periods when there is a load reduction. The avoided supply costs should be calculated using net program savings, savings net of changes in energy use that would have happened in the absence of the program. For fuel substitution programs, benefits include the avoided device costs and

¹This test was previously called the All Ratepayers Test.

avoided supply costs for the energy-using equipment not chosen by the program participant.

The costs in this test are the program costs paid by both the utility and the participants plus the increase in supply costs for the periods in which load is increased. Thus all equipment costs, installation, operation and maintenance, cost of removal (less salvage value), and administration costs, no matter who pays for them, are included in this test. Any tax credits are considered a reduction to costs in this test. For fuel substitution programs, the costs also include the increase in supply costs for the utility providing the fuel that is chosen as a result of the program.

How the Results Can be Expressed: The results of the Total Resource Cost Test can be expressed in several forms: as a net present value, a benefit-cost ratio, or as a levelized cost. The net present value is the primary unit of measurement for this test. Secondary means of expressing TRC test results are a benefit-cost ratio and levelized costs. The Societal Test--expressed in terms of net present value, a benefit-cost ratio, or levelized costs--is also considered a secondary means of expressing results. Levelized costs as a unit of measurement are inapplicable for fuel substitution programs, since these programs represent the net change of alternative fuels which are measured in different physical units (e.g. kWh or therms). Levelized costs are also not applicable for load building programs.

Net present value (NPV_{TRC}) is the discounted value of the net benefits to this test over a specified period of time. NPV_{TRC} is a measure of the change in the total resource costs due to the program. A net present value above zero indicates that the program is a less expensive resource than the supply option upon which the marginal costs are based.

The benefit-cost ratio (BCR_{TRC}) is the ratio of the discounted total benefits of the program to the discounted total costs over some specified time period. It gives an indication of the rate of return of this program to the utility and its ratepayers. A benefit-cost ratio above one indicates that the program is beneficial to the utility and its ratepayers on a total resource cost basis.

The levelized cost is a measure of the total costs of the program in a form that is sometimes used to estimate costs of utility-owned supply additions. It presents the total costs of the program to the utility and its ratepayers on a per kilowatt, per kilowatt-hour, or per therm basis levelized over the life of the program.

The Societal Test is structurally similar to the Total Resource Cost Test. It goes beyond the TRC test in that it attempts to quantify the change in the total resource costs to society as a whole rather than to only the service territory (the utility and its ratepayers). In taking society's perspective, the Societal Test utilizes essentially the same input variables as the TRC Test, but they are defined with a broader societal point of view. More specifically, the Societal Test differs from the TRC Test in at least one of five ways. First, the Societal Test may use higher marginal costs than the TRC test if a utility faces marginal costs that are lower than other utilities in the state or than its out-of-state suppliers. Marginal costs used in the Societal Test would reflect the cost to society of the more expensive alternative resources. Second, these marginal costs might also contain externality costs of power generation not captured by the market system. Third, tax credits are treated as a transfer payment in the Societal Test, and thus are left out. Fourth, in the case of capital expenditures, interest payments are considered a transfer payment since society actually expends the resources in the first year. Therefore, capital costs enter the calculations in the year in which they occur. And finally, a societal discount rate should be used.²

Strengths of the Total Resource Cost Test: The primary strength of the Total Resource Cost (TRC) test is its scope. The test includes total costs (participant plus utility) and also has the potential for capturing total benefits (avoided supply costs plus, in the case of the societal test variation, externalities). To the extent supply-side project evaluations also include total costs of generation

²Many economists have pointed out that use of a market discount rate in social cost-benefit analysis undervalues the interests of future generations. Yet if a market discount rate is not used, comparisons with alternative investments are difficult to make.

and/or transmission, the TRC test provides a useful basis for comparing demand- and supply-side options.

Since this test treats utility incentives paid to participants and revenue shifts as transfer payments (from all ratepayers to participants through increased revenue requirements), the test results are unaffected by the uncertainties of projected average rates, thus reducing the uncertainty of the test results. Average rates and assumptions associated with how other options are financed (analogous to the issue of incentives for DSM programs) are also excluded from most supply-side cost determinations, again making the TRC test useful for comparing demand-side and supply-side options.

Weakness of the Total Resource Cost Test: The treatment of revenue shifts and incentive payments as transfer payments--identified previously as a strength--can also be considered a weakness of the TRC test. While it is true that most supply-side cost analyses do not include such financial issues, it can be argued that DSM programs should include these effects since, in contrast to most supply options, DSM programs do result in lost revenues.

In addition, the costs of the DSM "resource" in the TRC test are based on the total costs of the program, including costs incurred by the participant. Supply-side resource options are typically based only on the costs incurred by the utility.

Finally, the TRC test cannot be applied meaningfully to load building programs, thereby limiting the ability to use this test to compare the full range of demand-side management options.

Formulas: The formulas for the net present value (NPV_{TRC}), the benefit-cost ratio (BCR_{TRC}) and levelized costs are presented below:

$$NPV_{TRC} = B_{TRC} - C_{TRC}$$

$$BCR_{TRC} = B_{TRC} / C_{TRC}$$

$$LC_{TRC} = LCRC / IMP$$

where:

- NPV_{TRC} = Net present value of total costs of the resource
 BCR_{TRC} = Benefit-cost ratio of total costs of the resource
 LC_{TRC} = Levelized cost per unit of the total cost of the resource
 (cents per kWh for conservation programs; dollars per kW for load management programs)
 B_{TRC} = Benefits of the program
 C_{TRC} = Costs of the program
 $LCRC$ = Total resource costs used for levelizing
 IMP = Total discounted load impacts of the program

The B_{TRC} , C_{TRC} , $LCRC$, and IMP terms are further defined as follows:

$$B_{TRC} = \sum_{t=1}^N \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^N \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}$$

$$C_{TRC} = \sum_{t=1}^N \frac{UC_t + PC_t + UIC_t}{(1+d)^{t-1}}$$

$$LCRC = \sum_{t=1}^N \frac{UC_t + PC_t - TC_t}{(1+d)^{t-1}}$$

$$IMP = \sum_{t=1}^N \left[\left(\sum_{i=1}^I \Delta EN_{it} \right) \text{ or } \left(\Delta DN_{it} \text{ where } i = \text{peak period} \right) \right] \frac{1}{(1+d)^{t-1}}$$

[All terms have been defined in previous chapters.]

The first summation in the B_{TRC} equation should be used for conservation and load management programs. For fuel substitution programs, both the first and second summations should be used.

Examples of the Use of the Total Resource Cost Test: Table 4 demonstrates the use and calculation of the Total Resource Cost Test

for each of five program types. Detailed input and output data and calculations are presented for each example program type in Appendix B.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 21
Witness: Smith & Marks

Data Request:

On page 13 of the Marks Testimony is the statement that Western is not attempting to recover the revenue erosion caused by WKG CARES. However, throughout its application, Western has cited one of the reasons for the proposed revenue increase has been the impact of residential energy conservation efforts. Is it correct that Western is attempting to recover these lost revenues through its general rate increase, rather than through the DSM tariff? Explain the response.

Response:

Western made no attempt to either include or exclude revenue erosion from WKG CARES in the general rate increase proposed by Western. Any revenues lost during the pilot period are permanently lost.

Western would not dispute the assertion that the annual revenue lost during calendar 2000, due to WKG CARES, would be captured through Western's proposed general increase in rates. However, Western would not capture any additional revenue lost from those WKG CARES customers added after 2000.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 22
Witness: Marks

Data Request:

22. On page 14 of the Marks Testimony is a discussion of the benefit to Western's uncollectible accounts as a result of WKG CARES. If the actual impact on uncollectible accounts was not determined as part of the impact evaluation, explain in detail the basis for the assumption that uncollectible accounts were impacted favorably by WKG CARES.

Response:

AEG has conducted evaluations of other utility low income programs. In one such evaluation, we were asked by the Collaborative that was responsible for Detroit Edison's low income program to evaluate the impact on uncollectible accounts. Detroit Edison's program was similar in nature to WKG CARES. We found that Detroit Edison's program did have the effect of reducing the amount of uncollectible accounts. We were also told by Dr. Gil Peach, who was the Technical Advisor for the Detroit Edison Collaborative and a nationally recognized expert in low income program evaluation, that such a finding was consistent with a number of other utility programs which he had evaluated. While we did not conduct this analysis for WKG CARES, it is reasonable to hypothesize that such a benefit "might" also exist for this program as well.

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 23.
Witness: Marks**

Data Request:

23. Provide copies of all program materials associated with WKG CARES, including the program parameters established regarding allowable program measures.

Response:

See attachment entitled, "Pre-Implementation Benefit/Cost Screening Results".

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 24 a
Witness: Marks

Data Request:

24. Provide the following information concerning WKG CARES:
 - a. Describe the specific changes in customers' consumption patterns that Western is attempting to influence through WKG CARES.

Response:

Since no specific page or line in my testimony has been cited, it is assumed that this question is being asked from a generic perspective. The WKG CARES Program provides improvements in overall home thermal integrity in general accordance with DOE guidelines. While customer consumption patterns may change as a result of the program, it is not the specific intent of the program to cause this change in behavior. Savings can and will occur if participating customers continue to use energy in the same fashion after they participate in the program as they did before they participated in the program.

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 24. b.
Witness: Marks**

Data Request:

24. Provide the following information concerning WKG CARES:
 - b. Indicate whether WKG CARES is consistent with Western's most recent long-range integrated resource plan ("IRP"). Include copies of Western's most recent IRP.

Response:

Western does not have an IRP.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 24 c
Witness: Marks

Data Request:

24. Provide the following information concerning WKG CARES:

c. Does WKG CARES result in any unreasonable prejudice or disadvantage to any class of customers? Explain the response.

Response:

The WKG CARES Program is targeted to residential families that qualify for DOE assistance through local CAP Agencies. The guidelines for acceptance for the DOE Program are mandated federally and generally supported by local government and states. WKG CARES is offering enhanced services to customers who are eligible for Federal assistance because the available Federal dollars are often not enough to do the job properly and completely. Furthermore, as federal dollar allocations shrink, there are less funds available for eligible families. The program was designed for the benefit of low-income customers. Within that segment of society, it provides equal and fair treatment to everyone. The only other qualifying factor is that the home must be served by WKG.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 24. d.
Witness: Marks

Data Request:

24. Provide the following information concerning WKG CARES:
d. Describe the extent to which WKG CARES programs are available, affordable, and useful to all customers.

Response:

The WKG CARES programs are available for use only by low-income WKG customers. As noted in Exhibit MM-2, the proposed rate will cost about \$.25 per month for each residential customer. The prospective annual program expense of \$200,000 equates to spending which is less than 0.3% of the normalized annual bill for all residential customers. This amount seems affordable. That the programs are useful to all customers is demonstrated by the positive TRC cost/benefit ratio.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 25
Witness: Smith & Marks

Data Request:

Given the provisions of KRS 278.285, explain in detail why Western waited until the filing of this rate proceeding to recover the costs for WKG CARES, which began in 1996.

Response:

KRS 278.285 provides no specific guidance regarding the time period over which DSM program costs may be collected. It merely provides that the issue may be addressed as part of a proceeding for approval of new rate schedules or in a separate proceeding which would be limited to a review of demand-side management and associated rate recovery issues.

This was Western's first DSM program. Western believed it was necessary for the program to produce data upon which to base a filing for rate recovery. Western indicated this intention in its letter responding to Mr. Mills in November 1996. The WKG CARES process and impact evaluation report was not available until the timeframe during which the decision to file this rate proceeding was made. The WKG CARES program began in late November 1996. The first full winter heating season to provide information for the process and impact evaluation report did not end until spring of 1998. The report was completed in July 1998 and presented to the Collaborative in September 1998. Since the decision to file this rate proceeding was made shortly thereafter, it was decided that this filing was the best way to address the issue of WKG CARES cost recovery.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 26
Witness: Smith & Marks

Data Request:

On page 18 of the Marks Testimony is the statement that Western is seeking to recover the costs associated with the 3-year pilot program which was approved by the Commission in the October 20, 1995 Order in Case No. 95-010. The October 20, 1995 Order approving the October 9, 1995 Settlement in Case No. 95-010 specifically stated that:

In all other respects this proposal mirrors the July 18, 1995 Settlement. Those provisions not addressed herein which were previously addressed and accepted in the Commission's Order of August 10, 1995 are approved without discussion.¹

The pilot DSM program is not discussed in the October 20, 1995 Order, and the Commission stated in the August 10, 1995 Order that it made no decision or findings of fact related to the DSM provisions included in the Settlement. Explain in detail how Western has concluded that the Commission approved the 3-year pilot program.

Response:

Correctly stated, the Commission approved the settlement, and in so doing commenced a process for developing DSM programs that qualified for rate recovery. The August 10, 1995 Order recognized that DSM programs would be developed and that Western had committed funding for this purpose. Clearly, the Commission understood that the purpose of the DSM programs would be to reduce the energy bills of low income customers via Demand Side Management, and that Western would eventually seek rate recovery.

¹ Case No. 95-010, October 20, 1995 Order, at 3.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 27. a.
Witness: Marks

Data Request:

27. Provide the following information concerning the costs associated with WKG CARES:

a. A schedule of the costs incurred during the 3-year pilot. These amounts should be identified using Western's account numbers, with account titles. The amounts should be presented in total and fiscal year amounts.

Response:

Fiscal YEAR	Account Number	Account Name	Amount
1997	18607069909	DSM Project - KY	\$249,907.24
1998	18607069909	DSM Project - KY	\$334,832.29
1999 (through May)	18607069909	DSM Project - KY	\$133,721.90
Total	18607069909	DSM Project - KY	\$718,461.43

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 27. b.
Witness: Adams

Data Request:

27. Provide the following information concerning the costs associated with WKG CARES:
 - b. Were the pilot costs expensed or deferred by Western? If deferred, provide the Western detailed account numbers utilized and the basis for Western assuming deferral was appropriate.

Response:

The pilot costs were expensed.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 27. c.
Witness: Marks

Data Request:

27. Provide the following information concerning the costs associated with WKG CARES:

c. A schedule of the costs proposed for the 1999 – 2002 period. These amounts should be identified using Western's account numbers, with account titles. The amounts should be presented in total and fiscal year amounts.

Response:

Fiscal YEAR	Account Number	Account Name	Amount
2000	18607069909	DSM Project – KY	\$200,000.00
2001	18607069909	DSM Project – KY	\$200,000.00
2002	18607069909	DSM Project – KY	\$200,000.00
Total	18607069909	DSM Project – KY	\$600,000.00

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 28
Witness: David H. Doggette

Data Request:

Provide an analysis that examines the completion percentage for capital budget projects. The analysis should be by individual capital project, by year, for fiscal years 1994 through 1998. The analysis should show the completion percentage (actual expenditure to budget amount) for each project in each fiscal year.

Response:

See attached schedules entitled "WKG CAPITAL BUDGET PROJECTS" for each of the fiscal years from 1994 through 1998, pages 1 to 28.

Table 1 on page 8 in the testimony of David H. Doggette contains data that differs from the schedules attached. The difference is attributable to rounding of data to the nearest dollar amount. Also, the data listed in Table 1 for FY 1998 does not include overhead dollars. Therefore, the attached schedule reflects higher dollar amounts for FY 1998. The "Actual Dollars" that should be listed in Table 1 for FY 1998 should be \$11,459,605 and the "Budgeted Dollars" should be listed as \$10,194,434 which produces a difference of \$1,265,171.

WKG CAPITAL BUDGET PROJECTS FY 1994

Completion Percentage

Budget No	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
WKG Company Office				
39009	Improvement-Leased Premises	\$ -	\$ 9,597	#####
39160	Office Machines	\$ 28,510	\$ 23,926	83.9
39170	Other Office Equipment	\$ -	\$ 276	#####
39211	Vehicles	\$ 30,868	\$ 28,621	92.7
39711	Communication Equip	\$ 60,473	\$ 62,587	103.5
39985	Mainframe Hardware	\$ -	\$ 413	#####
39987	PC Software	\$ 451	\$ 442	98.0
99800	Retirements & Salvage	\$ 5	\$ (12,883)	#####
	Total	\$ 120,307	\$ 112,979	93.9
Owensboro Operations				
33400	Field M&R Station	\$ -	\$ 2,122	#####
36740	Mains Cathodic Protection	\$ 11,000	\$ 4,684	42.6
37610	Blanket Mains System Improvemen	\$ 255,980	\$ 268,902	105.0
37620	Blanket Mains Public Improvement	\$ 65,608	\$ 28,152	42.9
37630	Blanket Mains Leakage	\$ 39,255	\$ 48,925	124.6
37820	US 60 E Relocation	\$ 31,736	\$ 24,640	77.6
38010	Services System Improvement	\$ 317,000	\$ 564,647	178.1
38030	Services Leakage	\$ 43,000	\$ 207,339	482.2
38510	Hancock Co Asphalt	\$ 40,000	\$ 11,306	28.3
38700	Other Equipment	\$ 1,901	\$ -	0.0 Deferred
39009	Improvements- Leased Premises	\$ 28,111	\$ 17,077	60.7
39150	Office Furniture	\$ 1,038	\$ -	0.0 Deferred
39211	Vehicles	\$ 74,030	\$ 103,031	139.2
39221	CNG Project Phase II	\$ 15,120	\$ 17,062	112.8
39400	Tools, Shop Equipment	\$ 15,923	\$ 10,752	67.5
39600	Backhoe Trailer Ramp Lift	\$ 840	\$ 1,110	132.1
39985	Mainframe Hardware	\$ 5,260	\$ 3,204	60.9
39986	PC Hardware	\$ -	\$ 1,259	#####
98100	Main Ext Forfeitures	\$ (41,574)	\$ (54,640)	131.4
99200	AIC Center St Relocation	\$ -	\$ (23,491)	#####
99800	Retirements	\$ 15	\$ 22,865	#####
	Total	\$ 904,243	\$ 1,258,946	139.2

Budget No	Description Operating Area	Budget Amount	Expenditure Amount	Completion %
Owensboro Storage & Transmission				
35100	Structures & Improvements	\$ 10,564	\$ 11,079	104.9
35200	Well Workovers	\$ 332,770	\$ 312,286	93.8
35400	Compressor Station Equip	\$ 6,588	\$ 7,033	106.8
35600	Purification Equip	\$ 5,760	\$ 5,631	97.8
36710	Hopkinsville 6" Replacement	\$ 372,470	\$ 14,003	3.8
36720	Spencer Co 4" Relocation	\$ 135,395	\$ 63,425	46.8
36740	Mains Cathodic Protection-Trans	\$ 10,873	\$ -	0.0 Deferred
36920	M&R Sta- Public Improvement	\$ 12,842	\$ 7,424	57.8
37620	US 231 Hartford-Beaver Dam 6" Re	\$ -	\$ 9,585	#####
38700	Other Equipment	\$ 5,550	\$ 6,028	108.6
39211	Vehicles	\$ 40,644	\$ 43,860	107.9
39400	Tools Shop Equip	\$ 2,391	\$ 2,374	99.3
39600	Power Operated Equipment	\$ 18,750	\$ 16,638	88.7
98200	AIC Sugar Creek	\$ -	\$ 4,035	#####
99100	Reimbursement- St Joseph 4"	\$ -	\$ (18,598)	#####
99800	Retirements	\$ 6	\$ (70,936)	#####
	Total Resp Ctr	\$ 954,603	\$ 413,867	43.4
WKG Measurement Center				
36910	M&R Sta System Impr	\$ -	\$ 992	#####
38100	Meters	\$ 1,933,488	\$ 1,841,722	95.3
38300	House Regs	\$ 397,210	\$ 259,469	65.3
38520	Ind M&R Equip Public Improve	\$ 180,150	\$ 24,045	13.3
39009	Improvements- Leased Premises	\$ 19,453	\$ 58,698	301.7
39211	Vehicles	\$ 22,187	\$ -	0.0 Deferred
39400	Tools, Shop Equip	\$ 4,577	\$ 4,248	92.8
39711	Communication Equip	\$ -	\$ 3,676	#####
39986	PC Hardware	\$ 7,760	\$ 8,767	113.0
39987	PC Software	\$ 1,076	\$ 998	92.8
99800	Retirements & Salvage	\$ 12	\$ (200,160)	#####
	Total	\$ 2,565,913	\$ 2,002,455	78.0

WKG Technical Services

35500	Measuring & Regulating Station	\$ 126,317	\$ 32,520	25.7
39150	Office Furniture	\$ 552	\$ 55,703	#####
39211	Vehicles	\$ 38,076	\$ 27,042	71.0
39711	Communication Equipment	\$ 4,290	\$ 4,308	100.4
39986	PC Hardware	\$ 14,709	\$ 21,186	144.0
39987	PC Software	\$ 12,561	\$ 13,832	110.1
99800	Retirements & Salvage	\$ 1	\$ (2,400)	#####
	Total	\$ 196,506	\$ 152,191	77.4

Madisonville Operations

36710	Bremner Cookie 4" Pipeline	\$ -	\$ 3,917	#####
36720	Marion Trans Line Relocate	\$ -	\$ 32	#####
36740	Transm Rectifier & Groundbed	\$ 30,958	\$ -	0.0 Deferred
37610	Mains- System Improvements	\$ 362,500	\$ 227,951	62.9
37620	Mains- Public (Hwy) Relocations	\$ 145,779	\$ 58,334	40.0
37630	Mains- Leakage	\$ 91,492	\$ 365,287	399.3
37640	Mains- Cathodic Protection	\$ 45,774	\$ 39,725	86.8
37810	M&R Sta Equipment	\$ 10,152	\$ 9,673	95.3
37820	M&R Sta Equipment- Public Impr	\$ -	\$ 3,629	#####
37920	City Gate M&R Sta Pub Impr	\$ 3,000	\$ -	0.0 Deferred
38010	Services- New	\$ 205,900	\$ 607,526	295.1
38020	Services-Pub-Impr-SkyLine Dr	\$ 18,415	\$ -	0.0 Deferred
38030	Services- Leakage	\$ 114,500	\$ 202,346	176.7
38700	Other Equipment	\$ 16,331	\$ 14,848	90.9
39009	Improvements- Leased Mad'vl WH	\$ 10,150	\$ 61,974	610.6
39150	Office Furniture	\$ 136,623	\$ 2,491	1.8
39160	Office Machines	\$ 2,150	\$ 2,479	115.3
39211	Vehicles	\$ 172,190	\$ 169,695	98.6
39400	Tools, Shop Equip	\$ 22,794	\$ 17,416	76.4
39600	Power Operated Equip	\$ 28,614	\$ 26,324	92.0
39711	Communication Equip	\$ 7,755	\$ 240	3.1
39986	PC Software	\$ -	\$ 100	#####
98100	Main Ext Forfeiture	\$ (2,872)	\$ (3,376)	117.5
98300	Public Works Reimbursement	\$ -	\$ (8,765)	#####
99100	Public Works Reimbursement- Gla	\$ (11,850)	\$ (34,419)	290.5
99200	Hwy Relocation AIC	\$ -	\$ (12,013)	#####
99800	Retirements	\$ 30	\$ 75,382	#####
	Total	\$ 1,410,385	\$ 1,830,796	129.8

Paducah Operations

36720	Transm Mains Public Improv	\$ 200,000	\$ -	0.0 Deferred
36740	Transm Mains Cathodic Protection	\$ 2,000	\$ -	0.0 Deferred
36920	M&R Sta Public Improvement	\$ 1,500	\$ 767	51.1
37610	Mains- System Improve	\$ 563,513	\$ 281,325	49.9
37620	Mains- Public Improve	\$ 85,770	\$ 10,471	12.2
37630	Mains- Leakage	\$ 67,514	\$ 20,460	30.3
37640	Mains- Cathodic Protection	\$ 10,000	\$ 25,616	256.2
38010	Services- New	\$ 257,000	\$ 427,722	166.4
38030	Services- Leakage	\$ 193,000	\$ 32,330	16.8
38700	Other Equipment	\$ 1,038	\$ 786	75.7
39150	Office Equipment	\$ 154,835	\$ -	0.0 Deferred
39160	Office Machines	\$ 995	\$ 985	99.0
39170	Other Office Equipment	\$ 14,776	\$ -	0.0 Deferred
39211	Vehicles	\$ 38,041	\$ 47,627	125.2
39400	Tools, Shop Equip	\$ 5,530	\$ 4,677	84.6
39985	Mainframe Hardware	\$ 270	\$ 117	43.3
39986	PC Hardware	\$ -	\$ 114	#####
98100	Main Extension Forfeiture	\$ (13,286)	\$ (15,274)	115.0
99100	Pub Works Reimbursement Gla	\$ (5,000)	\$ 9,271	#####
99800	Retirements & Salvage+C94	\$ 10	\$ (14,484)	#####
	Total	\$ 1,577,506	\$ 832,510	52.8

Bowling Green Operations

36710	Cemetery Rd System Improv	\$ 370,000	\$ 297,981	80.5
36740	Transm Mains- Cathodic Protection	\$ 2,000	\$ -	0.0
36910	M&R Sta Sys Improv	\$ 63,406	\$ 275	0.4
37610	Mains System Improv	\$ 580,297	\$ 546,533	94.2
37620	Mains- Public Improv	\$ 85,825	\$ 15,553	18.1
37630	Mains- Leakage	\$ 98,406	\$ 150,268	152.7
37640	Mains- Cathodic Protection	\$ 20,000	\$ 16,905	84.5
37800	M&R Sta Sys Improv	\$ 43,400	\$ 90,775	209.2
37910	City Gate M&R Sta Equip Sys Imp	\$ 61,293	\$ 31,200	50.9
38010	Services- New	\$ 265,000	\$ 481,077	181.5
38020	Services- Public Improve	\$ 44,909	\$ 1,580	3.5
38030	Services- Leakage	\$ 150,000	\$ 270,342	180.2
38510	Ind M&R Equip Sys Improv	\$ 40,000	\$ 5,394	13.5
38700	Other Equipment	\$ 3,735	\$ 2,947	78.9
39009	Improvements- Leased Glasgow W	\$ 30,443	\$ 38,519	126.5
39150	Office Furniture	\$ 91,694	\$ 89,757	97.9
39160	Office Machines	\$ 985	\$ 733	74.4
39170	Other Office Equipment	\$ 10,571	\$ 7,012	66.3
39211	Vehicles	\$ 97,190	\$ 88,974	91.5
39400	Tools, Shop Equip	\$ 8,271	\$ 5,866	70.9
39694	Backhoe	\$ 47,500	\$ 53,404	112.4

39711	Communication Equipment	\$ 1,155	\$ 3,646	315.7
39985	Mainframe Hardware	\$ 275	\$ 117	42.5
39986	PC Hardware	\$ -	\$ 126	#####
98100	Main Extension Forfeiture	\$ (7,189)	\$ (3,852)	53.6
99100	Public Works Reimbursement	\$ (5,000)	\$ -	0.0 Deferred
99800	Retirements	\$ 16	\$ 37,875	#####

Total	\$ 2,104,182	\$ 2,233,007	106.1
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Danville Operations

36730	Line 133 12" Replacement	\$ 175,000	\$ 172,438	98.5
36740	Trans Mains-Cathodic Protection	\$ 4,761	\$ 452	9.5
36910	M&R Sta- Aiken Rd PS Odorizer	\$ 29,117	\$ -	0.0 Deferred
39620	M&R Sta- Aiken Rd PS Rebuild	\$ 75,000	\$ -	0.0 Deferred
37610	Mains- Sys Improve	\$ 369,158	\$ 374,299	101.4
37620	Mains- Public (Hwy) Relocat	\$ 270,403	\$ 106,390	39.3
37630	Mains- Leakage	\$ 169,441	\$ 159,417	94.1
37640	Mains- Cathodic Protection	\$ 25,070	\$ 33,190	132.4
37810	M&R Sta Equip Sys Improv	\$ -	\$ 7,725	#####
37910	Shelbyville Ind M&R Sta	\$ 11,231	\$ 47,558	423.5
38010	Services- New	\$ 305,400	\$ 861,470	282.1
38030	Services- Leakage	\$ 24,000	\$ 95,027	395.9
38510	Ind M&R ATGTBT Meter	\$ -	\$ 17,681	#####
387000	Other Equipment	\$ 12,532	\$ 10,561	84.3
39004	Heating & A/C Equip	\$ 1,430	\$ 1,228	85.9
39009	Improv Shelbyvl WH	\$ 28,329	\$ 16,489	58.2
39150	Office Furniture- Danville	\$ 48,943	\$ 42,575	87.0
39160	Office Machines- Danville	\$ 6,256	\$ 3,236	51.7
39211	Vehicles	\$ 56,488	\$ 55,182	97.7
39400	Tools, Shop Equip	\$ 20,646	\$ 20,462	99.1
39600	Power Op Equip- Forklift	\$ 23,900	\$ 24,524	102.6
39693	Ditchers & Trenchers	\$ 111,400	\$ 93,355	83.8
39711	Communication Equip	\$ 4,200	\$ 16,010	381.2
39985	Mainframe Hardware	\$ 1,051	\$ 581	55.3
98100	Main Ext Forfeiture	\$ (25,162)	\$ (35,479)	141.0
99100	Public Works Reimbursement	\$ (128,798)	\$ (4,621)	3.6
99800	Retirements & Salvage	\$ 31	\$ (107,851)	#####

Total	\$ 1,619,827	\$ 2,011,899	124.2
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WKG Overheads	\$ 196,461	\$ 176,032	89.6
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Grand Total	\$ 11,453,427	\$ 10,872,491	94.9
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WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
WKG Company Office				
39009	Improvement-Leased Premises	\$ 5,714	\$ 5,809	101.7
39100	Office Furniture & Equipment	\$ 2,726	\$ 3,060	112.3
39103	Office Machines	\$ 4,863	\$ 4,788	98.5
39200	Vehicles & CNG Conversion	\$ 87,941	\$ 77,729	88.4
39700	Communication Equip	\$ 54,638	\$ 46,972	86.0
39905	Mainframe Hardware	\$ 6,108	\$ 5,603	91.7
39906	PC Hardware	\$ 13,506	\$ 6,973	51.6
39907	PC Software	\$ 1,869	\$ 1,233	66.0
99800	Retirements & Salvage	\$ (6,019)	\$ (1,500)	24.9
	Total	\$ 171,346	\$ 150,667	87.9
Owensboro Operations				
36700	Trans Mains Cathodic Protection	\$ 1,000	\$ -	0.0
36701	TP Mains Steel- Public Reloc	\$ 350,020	\$ -	0.0 Deferred
36900 10	M & R Sta Old KY 54	\$ 12,240	\$ 11,190	91.4
36900 20	Commonwealth Purchase	\$ 8,542	\$ 35,498	415.6
37600 40	Mains Cathodic Protection	\$ 10,000	\$ 24,915	249.2
37601 10	Blanket Mains- Sys Improv	\$ 332,938	\$ 207,965	62.5
37601 20	Blanket Mains Public Improvements	\$ 282,671	\$ 174,069	61.6
37601 30	Blanket Mains Leakage	\$ 144,674	\$ 175,651	121.4
37800 20	US 60 E Relocation	\$ 7,096	\$ 6,020	84.8
38000 10	Services System Improvement	\$ 400,000	\$ 570,828	142.7
38000 30	Services Leakage	\$ 100,000	\$ 187,178	187.2
38200 10	Meter Installations New	\$ 1	\$ 187,382	#####
38200 20	Meter Installations Public Improv	\$ 1	\$ 165,271	#####
38700	Other Equipment	\$ 2,588	\$ 3,824	147.8
39009	Improvements- Leased Premises	\$ 5,529	\$ 6,327	114.4
39100	Office Furniture & Equipment	\$ 876	\$ 733	83.7
39200	Vehicles	\$ 143,574	\$ 152,624	106.3
39400	Tools, Shop Equipment	\$ 6,920	\$ 8,881	128.3
39603	Ditchers	\$ 30,354	\$ 30,950	102.0
39700	Communication Equip	\$ 382	\$ 148	38.7
39905	Mainframe Hardware	\$ 15,265	\$ 14,055	92.1
98100	Main Ext Forfeitures	\$ (11,400)	\$ (11,403)	100.0
98300	Public Works Reimbursements	\$ 0	\$ (19,532)	#####
99800	Retirements	\$ 1,072	\$ 106,859	#####
	Total	\$ 1,844,343	\$ 2,039,433	110.6

WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
Owensboro Storage & Transmission				
35100 02	Structures & Improvements	\$ 58,480	\$ 54,382	93.0
35200 20	Well Workovers	\$ 466,785	\$ 254,946	54.6
35400 20	Compressor Station Equip	\$ 5,000	\$ 9,134	182.7
36701 20	Spencer Co 4" Relocation	\$ 172,547	\$ 173,221	100.4
36900 20	M&R Sta- Public Improvement	\$ 13,511	\$ 7,708	57.0
37601 20	US 231 Hartford-Beaver Dam 6" Rel	\$ 199,895	\$ 253,082	126.6
38700	Other Equipment	\$ 3,622	\$ 3,743	103.3
39004	A/C Equipment	\$ 1,320	\$ 1,454	110.2
39200	Vehicles	\$ 23,140	\$ 28,048	121.2
39400	Tools Shop Equip	\$ 4,058	\$ 4,956	122.1
99100	Public Works Reimbursement-	\$ -	\$ (61,756)	#####
99800	Retirements & Salvage	\$ (1,492)	\$ (6,686)	448.1
	Total Resp Ctr	\$ 946,866	\$ 722,232	76.3
WKG Measurement Center				
35500 20	M&R Equipment	\$ 3,600	\$ 4,438	123.3
37000	Communication Equip	\$ 10,800	\$ 10,055	93.1
38100 10	Meters, New	\$ 1,192,613	\$ 1,174,693	98.5
38100 20	Meters, Replacement	\$ 796,624	\$ 689,849	86.6
38300 10	House Regs,new	\$ 38,354	\$ 50,769	132.4
38300 20	House Regs- Replacement	\$ 375,034	\$ 326,147	87.0
38500 20	Ind M&R Equip Public Improve	\$ 420,380	\$ 304,677	72.5
39009	Improvements- Leased Premises	\$ 78,719	\$ 79,943	101.6
39200	Vehicles	\$ 21,760	\$ 20,092	92.3
39400	Tools, Shop Equip	\$ 11,321	\$ 11,700	103.3
39700	Communication Equip	\$ 583	\$ -	0.0
39705	Communication Equip- Telemeterin	\$ 1,800	\$ 2,526	140.3
39905	Mainframe Hardware	\$ 6,108	\$ 5,603	91.7
39906	PC Hardware	\$ 300	\$ 524	174.7
39907	PC Software	\$ 3,000	\$ 1,629	54.3
99800	Retirements & Salvage	\$ (2,842)	\$ (157,854)	#####
	Total	\$ 2,958,154	\$ 2,524,791	85.4

WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
WKG Technical Services				
36900	Measuring & Reg Station Equip	\$ 0	\$ (26)	#####
38700	Other Equipment	\$ 0	\$ 40,812	#####
39100	Office Furniture & Equipment	\$ 385	\$ 260	67.5
39211	Vehicles	\$ 130,564	\$ 129,220	99.0
39600	Power Operated Equip	\$ 17,971	\$ 19,574	108.9
39700	Communication Equipment	\$ 350	\$ -	0.0
39905	Mainframe Hardware	\$ 6,107	\$ 5,650	92.5
39906	PC Hardware	\$ 18,530	\$ 35,500	191.6
39907	PC Software	\$ 23,308	\$ 4,005	17.2
99800	Retirements & Salvage	\$ (8,721)	\$ (5,529)	63.4
	Total	\$ 188,494	\$ 229,466	121.7
 Madisonville Operations				
36700 40	Transm Rectifier & Groundbed	\$ 46,429	\$ 36,094	77.7 Deferred
36900 10	M & R Station Equip	\$ -	\$ 9,955	#####
37640	Mains - Cathodic Protection	\$ 23,407	\$ 29,958	128.0
37601 10	Mains- Stl System Improve	\$ 381,558	\$ 164,429	43.1
37601 20	Mains- Public (Hwy) Relocations	\$ 360,417	\$ 38,594	10.7
37601 30	Mains- Leakage	\$ 199,800	\$ 458,842	229.7
37602 20	Mains- PE Public (Hwy) Relocation	\$ -	\$ 3,180	#####
37900 20	City Gate M&R Sta Pub Impr	\$ 2,999	\$ 2,679	89.3
38000 10	Services- New	\$ 326,353	\$ 490,539	150.3
38000 20	Services-Pub-Impr-SkyLine Dr	\$ 18,415	\$ 10,584	57.5
38000 30	Services- Leakage	\$ 109,000	\$ 280,294	257.2
38200 10	Meter Installations New	\$ 1	\$ 64,107	#####
38200 20	Meter Set Replacement	\$ 1	\$ 49,858	#####
38500 10	Indust M&R Equip KY 1789 Reloc	\$ 0	\$ 19,346	#####
38700	Other Equipment	\$ 14,806	\$ 14,253	96.3
39009	Improvements- Leased Mad'vl WH	\$ 296,652	\$ 302,922	102.1
39100	Office Furniture & Equipment	\$ 254,036	\$ 122,276	48.1
39103	Office Machines	\$ 2,866	\$ 11,189	390.4
39200	Vehicles	\$ 48,493	\$ 50,333	103.8
39300	Stores Equipment	\$ 13,327	\$ -	0.0
39400	Tools, Shop Equip	\$ 39,383	\$ 36,559	92.8
39600	Power Operated Equip	\$ 18,796	\$ 16,861	89.7
39603	Ditchers	\$ 9,700	\$ 9,535	98.3
39700	Communication Equip	\$ 14,197	\$ 10,734	75.6
39800	Misc Equip	\$ 2,622	\$ 668	25.5

WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
39905	Mainframe Hardware	\$ 26,362	\$ 20,610	78.2
98100	Main Ext Forfeiture	\$ (77,471)	\$ (76,378)	98.6
98300	Public Works Reimbursement	\$ -	\$ (41,977)	#####
99100	Public Works Reimbursement- Gla	\$ -	\$ (106,573)	#####
99800	Retirements	\$ 14,928	\$ 111,091	744.2
	Total	\$ 2,147,077	\$ 2,140,562	99.7
Paducah Operations				
36510	Land & Land Rights	\$ -	\$ 4,862	#####
36700 40	Transm Mains Cathodic Protection	\$ 2,000	\$ -	0.0 Deferred
36900 20	M&R Sta Public Improvement	\$ 26,800	\$ 3,429	12.8
37600 40	Mains- Cathodic Protection	\$ 20,000	\$ 18,179	90.9
37601 10	Mains- System Improve	\$ 544,594	\$ 364,500	66.9
37601 20	Mains- Public Improve	\$ 190,224	\$ 196,978	103.6
37601 30	Mains- Leakage	\$ 205,229	\$ 222,152	108.2
37900 10	City Gate M&R Sta Chk Sta	\$ 5,509	\$ 7,570	137.4
38000 10	Services- New	\$ 545,000	\$ 447,544	82.1
38000 30	Services- Leakage	\$ 45,000	\$ 75,890	168.6
38200 10	Meter Installations	\$ 1	\$ 87,231	#####
38200 20	Meter Replacements	\$ 1	\$ 28,953	#####
38700	Other Equipment	\$ 8,884	\$ 8,034	90.4
39009	Improvements- Leased Premises	\$ 8,325	\$ 1,680	20.2
39100	Office Furniture & Equipment	\$ 169,610	\$ 101,505	59.8
39200	Vehicles	\$ 152,479	\$ 154,730	101.5
39400	Tools, Shop Equip	\$ 29,558	\$ 32,253	109.1
39600	Power Operated Equip	\$ 27,914	\$ 27,007	96.8
39603	Ditchers	\$ 82,851	\$ 68,261	82.4
39604	Backhoes	\$ 55,692	\$ 53,103	95.4
39700	Communication Equip	\$ 382	\$ -	0.0
39905	Mainframe Hardware	\$ 9,312	\$ 8,528	91.6
98100	Main Extension Forfeiture	\$ (18,671)	\$ (14,863)	79.6
99100	Pub Works Reimbursement Gla	\$ (15,100)	\$ (69,462)	460.0
99800	Retirements & Salvage	\$ (18,354)	\$ (32,526)	177.2
	Total	\$ 2,077,240	\$ 1,795,538	86.4

WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
Bowling Green Operations				
36700 40	Transm Mains- Cathodic Protection	\$ 2,000	\$ -	0.0
36700 10	Cemetery Rd System Improv	\$ 183,871	\$ 159,473	86.7
36701 20	6" TP Line to Elrod Rd	\$ 379,096	\$ 377,094	99.5
36701 20	8" TP line to US 31W	\$ 380,859	\$ 390,624	102.6
36900 20	M&R Sta US 31W, Elrod Rd	\$ 103,945	\$ 138,830	133.6
37600 40	Mains- Cathodic Protection	\$ 21,000	\$ 7,816	37.2
37601 10	Mains System Improv	\$ 927,182	\$ 711,308	76.7
37601 20	Mains- Public Improv	\$ 776,867	\$ 435,632	56.1
37601 30	Mains- Leakage	\$ 171,830	\$ 285,506	166.2
37800	M&R Sta Sys Improv	\$ 5,200	\$ 950	18.3
37900 20	City Gate M&R Sta Equip Pub Imp	\$ 15,000	\$ -	0.0 Deferred
38000 10	Services- New	\$ 525,000	\$ 549,543	104.7
38000 20	Services- Public Improve	\$ -	\$ (3,933)	#####
38000 30	Services- Leakage	\$ 85,000	\$ 240,413	282.8
38200 10	Meter Installations	\$ 1	\$ 181,684	#####
38200 20	Meter Replacements	\$ 1	\$ 119,144	#####
38500 10	Ind M&R Equip Sys Improv	\$ 40,000	\$ -	0.0
38500 20	Ind M&R Equip Pub Improv	\$ 22,000	\$ 15,854	72.1
38700	Other Equipment	\$ 7,809	\$ 8,361	107.1
39009	Improvements- Leased Premises	\$ 8,200	\$ 4,263	52.0
39100	Office Furniture & Equipment	\$ 2,707	\$ 2,867	105.9
39103	Office Machines	\$ 480	\$ 422	87.9
39200	Vehicles	\$ 257,495	\$ 259,630	100.8
39400	Tools, Shop Equip	\$ 33,867	\$ 32,859	97.0
39600	Power Operated Equip	\$ 18,320	\$ 13,996	76.4
39603	Ditchers	\$ 9,600	\$ 7,693	80.1
39700	Communication Equipment	\$ 1,035	\$ 1,797	173.6
39701	Communication Equip- Mob Radio	\$ 2,600	\$ 2,347	90.3
39905	Mainframe Hardware	\$ 9,462	\$ 8,584	90.7
98100	Main Extension Forfeiture	\$ (37,430)	\$ (148,397)	396.5
98300	Public Works Reimbursement	\$ -	\$ (7,120)	##### Deferred
99100	Public Works Reimbursement	\$ (120,000)	\$ -	0.0 Deferred
99800	Retirements & Salvage	\$ (14,263)	\$ 90,161	#####
Total		\$ 3,818,734	\$ 3,887,401	101.8

WKG CAPITAL BUDGET PROJECTS FY 1995

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
Danville Operations				
36600 20	Structures & Improvements	\$ 1,702	\$ 1,505	88.4
36700 40	Trans Mains-Cathodic Protection	\$ 3,000	\$ -	0.0
36701 20	Shelbyville Ind Tie-back	\$ 273,400	\$ 260,005	95.1
36701 30	Line 133 12" Replacement	\$ 280,748	\$ 241,210	85.9
36901 20	M&R Sta- Aiken Rd PS Rebuild	\$ 161,197	\$ 183,064	113.6 Deferred
37600 40	Mains- Cathodic Protection	\$ 40,000	\$ 63,966	159.9
37601 10	Mains- Sys Improve	\$ 447,850	\$ 386,771	86.4
37601 20	Mains- Public (Hwy) Relocat	\$ 275,802	\$ 333,935	121.1
37601 30	Mains- Leakage	\$ 204,179	\$ 57,140	28.0
37800 10	M&R Sta Equip Sys Improv	\$ 14,234	\$ 9,852	69.2
37800 20	M&R Sta Equip Sys Improv	\$ 7,100	\$ 6,684	
37900 20	Shelbyville Ind M&R Sta	\$ 27,000	\$ 30,624	94.1
38000 10	Services- New	\$ 423,997	\$ 646,960	152.6
38000 30	Services- Leakage	\$ 70,000	\$ 67,425	96.3
38200 10	Meter Installations	\$ 1	\$ 112,928	#####
38200 20	Meter Replacements	\$ 1	\$ 76,672	#####
38500 10	Ind M&R ATGTBT Meter	\$ 61,878	\$ 15,533	25.1
387000	Other Equipment	\$ 3,016	\$ 4,528	150.1
39003	Improvements	\$ 5,600	\$ 455	8.1
39004	Heating & A/C Equip	\$ -	\$ 2,310	#####
39009	Improv Leased Premises	\$ 41,123	\$ 48,394	117.7
39100	Office Furniture & Equip- Danville	\$ 23,059	\$ 371	1.6
39103	Office Machines- Danville	\$ 3,053	\$ 1,596	52.3
39200	Vehicles	\$ 37,870	\$ 47,285	124.9
39300	Stores Equipment	\$ 639	\$ 948	148.4
39400	Tools, Shop Equip	\$ 17,305	\$ 17,339	100.2
39600	Power Op Equip- Forklift	\$ 11,334	\$ 8,088	71.4
39604	Backhoes	\$ 59,755	\$ 60,102	100.6
39700	Communication Equip	\$ 1,157	\$ 888	76.8
39702	Communication Equip - Fixed Radio	\$ -	\$ 2,255	
39905	Mainframe Hardware	\$ 15,418	\$ 14,186	92.0
98100	Main Ext Forfeiture	\$ (68,198)	\$ (67,272)	98.6
99100	Public Works Reimbursement	\$ -	\$ (104,926)	#####
99800	Retirements & Salvage	\$ (3,304)	\$ 35,406	#####
	Total	\$ 2,439,916	\$ 2,566,227	105.2
WKG Overheads				
39900		\$ 0	\$ (598,260)	#####
	Grand Total	\$ 16,592,171	\$ 15,458,057	93.2

WKG CAPITAL BUDGET PROJECTS

FY 1996

Completion Percentage

Budget No.	Description	Budget Amount	Actual Amount	Completion %
Operating Area				
WKG Company Office				
39009	Improvement-Leased Premises	\$ 7,755	\$ 8,354	107.7
39100	Office Furniture & Equipment	\$ 895	\$ 15,237	#####
39200	Vehicles & CNG Conversion	\$ 64,831	\$ 50,954	78.6
39200 98	Transportation Equip	\$ (2,500)	\$ (3,800)	152.0
39700	Communication Equip	\$ 1,375	\$ 900	65.4
39906	PC Hardware	\$ 20,581	\$ 25,461	123.7
39907	PC Software	\$ 1,790	\$ 20,556	#####
99800	Retirements & Salvage	\$ -	\$ (2,400)	#####
	Total	\$ 94,727	\$ 115,262	121.7
Owensboro Operations				
36900 20	Mains	\$ 8,542	\$ -	0.0
37600 40	Mains Cathodic Protection	\$ 21,000	\$ 41,563	197.9
37601 10	Mains - Steel Sys Improv	\$ -	\$ 10,158	#####
37601 20	Mains - Steel Relocate	\$ 11,287	\$ 64,289	569.6
37601 30	Mains - Steel Leakage	\$ 101,221	\$ 80,925	79.9
37601 81	Main Ext. Forfeiture	\$ (23,002)	\$ (15,934)	69.3
37601 98	Mains - Steel Retire	\$ 9,839	\$ 7,777	79.0
37602 10	Mains - Plastic Sys Improve	\$ 280,000	\$ 255,944	91.4
37602 20	Mains - Plastic	\$ 183,110	\$ -	0.0
37602 30	Mains - Plastic Leakage	\$ -	\$ 12,621	#####
37602 98	Mains - Plastic Retire	\$ -	\$ 2,742	#####
37602 91	Mains	\$ (2)	\$ -	0.0
38000 10	Services New	\$ 546,400	\$ 500,940	91.7
38000 30	Services Leakage	\$ 170,000	\$ 234,779	138.1
38000 98	Services Retire	\$ -	\$ 87,638	#####
38200 10	Meter Installations	\$ 92,100	\$ 156,002	169.4
38200 20	Meter Installations Public Improv	\$ 30,000	\$ 125,760	419.2
38200 98	Meter Installations Retire	\$ 22,500	\$ 9,081	40.4
38700	Other Equipment	\$ 6,826	\$ 5,734	84.0
39009	Improvements- Leased Premises	\$ 13,400	\$ 10,222	76.3
39103	Office Machines	\$ -	\$ 540	#####
39200	Vehicles	\$ 272,000	\$ 243,917	89.7
39200 98	Transportation Equipment	\$ (22,500)	\$ (23,331)	103.7
39400	Tools, Shop Equipment	\$ 4,172	\$ 4,977	119.3
39600	Power Operated Equipment	\$ 10,200	\$ 8,734	85.6
39700	Communication Equip	\$ 382	\$ 545	142.7

39702	Communication Equip - FI	\$	-	\$	833	#####
99800	Retirements	\$	-	\$	(4,811)	#####
	Total	\$	1,737,475	\$	1,821,646	104.8

Owensboro Storage & Transmission

33400	Field Meas & Reg	\$	1,308	\$	1,976	151.1
35200 20	Well Workovers	\$	324,614	\$	118,100	36.4
35400 98	Compressor Station Equip	\$	7,750	\$	-	0.0
35600	Purification Equip	\$	22,800	\$	20,244	88.8
36600	Structures & Improv	\$	15,000	\$	10,883	72.6
36701 20	TP Mains - Stl Public Improvemen	\$	1,849,640	\$	600,681	32.5
36701 30	TP Mains - Steel Leakage	\$	49,500	\$	6,477	13.1
36701 91	Mains - Steel	\$	(24,198)	\$	-	
36701 98	Mains - Stl Retire	\$	13,800	\$	2,077	15.1
36900 20	M&R Sta- Public Improvement	\$	232,500	\$	143,696	61.8
37601 20	Mains - Steel Public Improv	\$	6,088	\$	-	0.0
37601 98	Mains - Steel Retire	\$	4,879	\$	11,292	231.4
38700	Other Equipment	\$	965	\$	625	64.8
39200	Vehicles	\$	43,889	\$	35,468	80.8
39400	Tools Shop Equip	\$	123,781	\$	126,021	101.8
39600	Power Operated Equipment	\$	37,966	\$	-	0.0
99100	Public Works Reimbursement-	\$	-	\$	(21,691)	#####
99800	Retirements & Salvage	\$	-	\$	2,756	#####
	Total Resp Ctr	\$	2,710,282	\$	1,058,605	39.1

WKG Measurement Center

37000	Commication Equip	\$	80,000	\$	72,125	90.2
38100 10	Meters, New	\$	2,099,393	\$	1,932,554	92.1
38100 20	Meters, Replacement	\$	77,224	\$	134,039	173.6
38100 98	Meters Retire	\$	(300)	\$	(339,362)	#####
38300 10	House Regs,new	\$	472,064	\$	406,094	86.0
38300 98	House Regs Retire	\$	(300)	\$	-	0.0
38500 20	Ind M&R Equip Public Improve	\$	308,825	\$	217,654	70.5
38500 91	Industrial Measuring and	\$	(150,000)	\$	-	0.0
38500 98	Industrial M&R Retire	\$	(2,574)	\$	3,138	#####
38700	Other Equipment	\$	780	\$	746	95.6
39009	Improvements- Leased Premises	\$	11,999	\$	44,443	370.4
39103	Office Machines	\$	17,913	\$	13,372	74.6
39200	Vehicles	\$	56,492	\$	52,398	92.8
39200 98	Vehicles Retire /Salvage	\$	(5,000)	\$	(6,640)	132.8
39400	Tools, Shop Equip	\$	1,380	\$	190	13.8
39705	Communication Equip- Telemeteri	\$	6,135	\$	6,790	110.7
39906	PC Hardware	\$	6,204	\$	29,644	477.8
39907	PC Software	\$	5,005	\$	613	12.2

Total	\$ 2,985,240	\$ 2,567,798	86.0
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WKG Technical Services

35200	Wells	\$ 26,000	\$ -	0.0
39103	Office Machines	\$ 27,171	\$ 20,295	74.7
39200	Vehicles	\$ 58,814	\$ 52,929	90.0
39200 98	Vehicles Retire / Salvage	\$ (2,500)	\$ (3,448)	137.9
39905	Mainframe Hardware	\$ 3,001	\$ 7,407	246.8
39906	PC Hardware	\$ 97,430	\$ 98,601	101.2
39907	PC Software	\$ 17,048	\$ 14,184	83.2
39908	Application Software	\$ 930	\$ 1,032	111.0
99800	Retirements & Salvage	\$ -	\$ (1,920)	#####
Total		\$ 227,894	\$ 189,080	83.0

Madisonville Operations

36700 40	Transm Rectifier & Groundbed	\$ 1,900	\$ -	0.0 Deferred
36701	Mains - Steel	\$ 18,001	\$ 16,846	93.6
36900 10	M & R Station Equip	\$ 8,530	\$ 41,998	492.4
36900 20	M & R Station	\$ 25,842	\$ 12,531	48.5
37500	Structures and Improve	\$ -	\$ 2,724	#####
37600	Mains - Cathodic Protection	\$ 22,100	\$ 19,380	87.7
37601 10	Mains- Stl System Improve	\$ 14,507	\$ 8,531	58.8
37601 10	Hudson Foods	\$ -	\$ 102,646	#####
37601 20	Mains- Public (Hwy) Relocations	\$ 190,986	\$ 38,642	20.2
37601 30	Mains- Leakage	\$ 336,296	\$ 213,195	63.4
37601 81	Main Ext Forfeiture	\$ (70,280)	\$ (19,025)	27.1
37601 83	Mains - Pub Works Reimburse	\$ -	\$ (5,864)	#####
37601 98	Mains - Steel Retire	\$ (29,403)	\$ (38,249)	130.1
37602 10	Mains- PE Sys Improve	\$ 239,406	\$ 198,157	82.8
37602 20	Mains- PE Public Relocations	\$ -	\$ 1,461	#####
37602 30	Mains - Plastic Leakage	\$ 25,080	\$ 103,863	414.1
37602 98	Mains - Plastic Retire	\$ 220	\$ 2,512	#####
37800	Meas and Reg. Sta Equip	\$ 50,824	\$ 35,849	70.5
38000 10	Services- New	\$ 550,000	\$ 513,082	93.3
38000 20	Services Replace	\$ 29,980	\$ -	0.0
38000 30	Services- Leakage	\$ 192,771	\$ 135,944	70.5
38000 98	Services Retirement	\$ 252	\$ 62,350	
38200 10	Meter Installations New	\$ 54,629	\$ 123,632	226.3
38200 20	Meter Set Replacement	\$ 19,576	\$ 63,362	323.7
38200 98	Meter Retire	\$ 18,976	\$ 16,021	84.4
38700	Other Equipment	\$ 3,030	\$ 5,130	169.3
39009	Improvements-	\$ 1,200	\$ 1,421	118.4
39100	Office Furniture & Equipment	\$ 1,225	\$ 2,541	207.4
39103	Office Machines	\$ 1,201	\$ 7,961	662.9
39200	Vehicles	\$ 46,083	\$ 43,475	94.3

39200 98	Vehicles Retire / Salvage	\$ (5,000)	\$ (6,800)	136.0
39400	Tools, Shop Equip	\$ 22,581	\$ 23,081	102.2
39400 98	Tools, Shop Equip	\$ 8	\$ (800)	#####
39700	Communication Equip	\$ 1,215	\$ 419	34.5
39701	Communication Equip - MO	\$ 2,800	\$ 2,190	78.2
39905	Mainframe Hardware	\$ 3,791	\$ 2,659	70.1
99800	Retirements	\$ -	\$ (4,868)	#####
	Total	\$ 1,778,327	\$ 1,725,997	97.1

Paducah Operations

36700 40	Transm Mains Cathodic Protectio	\$ 500	\$ -	0.0 Deferred
36900 20	M&R Sta Public Improvement	\$ 167,803	\$ 54,124	32.3
37600 40	Mains- Cathodic Protection	\$ 30,000	\$ 10,069	33.6
37601 10	Mains- System Improve	\$ 38,384	\$ 6,480	16.9
37601 20	Mains- Public Improve	\$ 420,200	\$ 72,808	17.3
37601 20	Husbands Rd Relocation	\$ 212,800	\$ 164,884	77.5
37601 20	West Paducah 6" HP Feeder	\$ 1,400,000	\$ 793,822	56.7
37601 30	Mains- Leakage	\$ 149,650	\$ 95,035	63.5
37601 81	Main Ext Forfeiture	\$ (36,100)	\$ (26,633)	73.8
37601 91	Mains - Stl Reimburse	\$ (158,172)	\$ (22,699)	14.4
37601 98	Mains - Steel Retirement	\$ 3,956	\$ 17,047	430.9
37602 10	Mains - Plastic Sys Improv	\$ 452,769	\$ 146,032	32.3
37602 10	Grand Lakes Subdivision	\$ 97,231	\$ 85,326	87.8
37602 20	Mains - Plastic	\$ 141,668	\$ 117,389	82.9
37602 30	Mains - Plastic Leakage	\$ 42,555	\$ 5,333	12.5
37602 91	Mains - Plastic	\$ (88,747)	\$ (25,307)	28.5
37602 98	Mains - Plastic Retirements	\$ 2	\$ 961	#####
37800 10	Meas. And Reg. Sta Equip	\$ -	\$ 9,321	#####
37800 20	Meas. And Reg. Sta Equip	\$ -	\$ 5,493	#####
37900 20	City Gate M&R Sta Chk Sta	\$ -	\$ 209	#####
38000 10	Services- New	\$ 517,000	\$ 521,482	100.9
38000 30	Services- Leakage	\$ 50,000	\$ 37,001	74.0
38000 40	Services	\$ 7,000	\$ -	0.0
38000 98	Services	\$ 3,000	\$ 35,102	#####
38200 10	Meter Installations	\$ 33,000	\$ 102,051	309.2
38200 20	Meter Replacements	\$ 29,000	\$ 29,679	102.3
38200 98	Meter Installations	\$ 8,000	\$ 11,259	140.7
38700	Other Equipment	\$ 8,954	\$ 6,529	72.9
39009	Improvements- Leased Premises	\$ 9,801	\$ 13,782	140.6
39100	Office Furniture & Equipment	\$ -	\$ 2,486	#####
39103	Office Machines	\$ 1,001	\$ 868	86.7
39200	Vehicles	\$ 184,568	\$ 155,953	84.5
39400	Tools, Shop Equip	\$ 8,211	\$ 6,552	79.8
39600	Power Operated Equip	\$ 2,601	\$ 1,007	38.7
39605	Welders	\$ 4,501	\$ 3,865	85.9
39701	Communication Equip - MO	\$ 6,502	\$ 6,309	97.0
99800	Retirements & Salvage	\$ -	\$ (7,795)	#####

Total	\$ 3,747,638	\$ 2,435,824	65.0
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Bowling Green Operations

36700 40	Transm Mains- Cathodic Protectio	\$ 2,000	\$ -	0.0
36701 20	TP Mains - Stl Public Improv	\$ -	\$ 20,986	#####
36900	Meas and Reg. Station	\$ 30,000	\$ 34,743	115.8
37600 40	Mains- Cathodic Protection	\$ 20,000	\$ 10,978	54.9
37601 10	Mains System Improv	\$ 1,032,000	\$ 639,863	62.0
37601 20	US 68-80 Relocation	\$ 77,166	\$ 82,409	106.8
37601 30	Mains- Leakage	\$ 175,000	\$ 288,954	165.1
37601 81	Mains - Steel	\$ (68,998)	\$ (65,733)	95.3
37601 91	Mains - Steel	\$ (197,571)	\$ -	0.0
37601 98	Mains - Steel Retirements	\$ 8,440	\$ 26,012	308.2
37602	Mains - Plastic	\$ -	\$ 52,704	#####
37800	M&R Sta Sys Improv	\$ -	\$ 3,166	#####
37900 20	City Gate M&R Sta Equip Pub Im	\$ 14,997	\$ -	0.0 Deferred
38000 10	Services- New	\$ 700,000	\$ 413,288	59.0
38000 30	Services- Leakage	\$ 150,000	\$ 135,031	90.0
38000 98	Services Retirements	\$ 5,000	\$ 62,588	#####
38200 10	Meter Installations	\$ 100,000	\$ 147,740	147.7
38200 20	Meter Replacements	\$ 100,000	\$ 42,743	42.7
38200 98	Meter Retirements	\$ -	\$ 12,333	#####
38500 10	Ind M&R Equip Sys Improv	\$ 40,000	\$ -	0.0
38700	Other Equipment	\$ 8,805	\$ 11,124	126.3
39000	Structures & Improvement	\$ -	\$ 2,666	#####
39009	Improvements - Leased Pre	\$ 3,749	\$ -	0.0
39100	Office Furniture & Equipment	\$ 44,808	\$ -	0.0
39103	Office Machines	\$ 10,241	\$ 4,342	42.4
39200	Vehicles	\$ 226,273	\$ 198,749	87.8
39200 98	Vehicles Retire / Salvage	\$ (15,000)	\$ (23,119)	154.1
39400	Tools, Shop Equip	\$ 44,537	\$ 19,275	43.3
39604	Backhoes	\$ 59,360	\$ 58,574	98.7
39700	Communication Equipment	\$ 2,575	\$ 680	26.4
39800	Misc. Equipment	\$ 3,339	\$ -	0.0
39905	Mainframe Hardware	\$ 6,882	\$ 5,318	77.3
99800	Retirements & Salvage	\$ -	\$ (7,960)	#####
Total		\$ 2,583,603	\$ 2,177,453	84.3

Danville Operations

36700 40	Trans Mains-Cathodic Protection	\$ 10,875	\$ 7,761	71.4
37601 20	TP Mains - Stl Relocate	\$ -	\$ 10,064	#####
36701 30	12" L-133 Replacement	\$ 299,260	\$ 249,071	83.2
36701 98	TP Mains - Steel Retirement	\$ 400	\$ 132	33.0
36900	Meas. And Reg. Sta	\$ 1,766	\$ 3,098	175.4 Deferred
37600 40	Mains- Cathodic Protection	\$ 25,000	\$ 16,782	67.1
37601 10	Mains- Sys Improve	\$ 4,500	\$ 6,620	147.1
37601 20	Mains- Public (Hwy) Relocat	\$ 4,700	\$ 42,455	903.3
37601 30	Mains- Leakage	\$ 75,000	\$ 117,886	157.2
37601 81	Main Ext Forfeiture	\$ (42,804)	\$ (14,577)	34.1
37601 98	Mains - Steel Retirement	\$ -	\$ 3,049	#####
37602 10	Mains - Plastic Sys Improv	\$ 380,000	\$ 279,225	73.5
37602 30	Mains - Plastic Leakage	\$ -	\$ 226,986	#####
37602 91	Mains - Plastic	\$ -	\$ (1,028)	#####
37800 20	Meas & Reg. Sta	\$ 25,001	\$ -	0.0
38000 10	Services- New	\$ 553,850	\$ 620,985	112.1
38000 30	Services- Leakage	\$ 100,080	\$ 76,775	76.7
38000 98	Services Retirement	\$ -	\$ 25,707	#####
38200 10	Meter Installations	\$ 34,980	\$ 141,697	405.1
38200 20	Meter Replacements	\$ 51,930	\$ 86,091	165.8
38200 98	Meter Retirement	\$ 1	\$ 12,409	#####
38500 10	Ind M&R Meter	\$ 40,000	\$ -	0.0
387000	Other Equipment	\$ 5,323	\$ 8,289	155.7
39003	Improvements	\$ 2,700	\$ 2,511	93.0
39009	Improv Leased Premises	\$ 11,720	\$ 6,379	54.4
39100	Office Furniture & Equip- Danville	\$ 36,165	\$ 1,473	4.1
39103	Office Machines- Danville	\$ 12,896	\$ 11,012	85.4
39200	Vehicles	\$ 261,452	\$ 239,445	91.6
39200 98	Vehicles Retire /Salvage	\$ (25,000)	\$ (26,352)	105.4
39400	Tools, Shop Equip	\$ 31,509	\$ 27,490	87.2
39600	Power Op Equip- Forklift	\$ (999)	\$ (400)	40.0
39604	Backhoes	\$ (3,499)	\$ (5,900)	168.6
39700	Communication Equip	\$ 900	\$ 812	90.2
39701	Communication Equip - MO	\$ 3,990	\$ 3,410	85.5
39905	Mainframe Hardware	\$ 3,491	\$ 2,659	76.2
99100	Public Works Reimbursement	\$ -	\$ (18,269)	#####
99800	Retirements & Salvage	\$ -	\$ (1,200)	#####
	Total	\$ 1,905,187	\$ 2,162,547	113.5
	WKG Overheads			#####
39900		\$ 0	\$ -	
	Grand Total	\$ 17,770,373	\$ 14,254,212	80.2

WKG CAPITAL BUDGET PROJECTS FY 1997

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
WKG Company Office				
39100	Office Furniture & Equipment	\$ 917	\$ 875	95.4
39103	Office Machines	\$ 8,879	\$ 2,754	31.0
39200	Vehicles	\$ 24,577	\$ 43,833	178.3
39700	Communication Equip	\$ 1,571	\$ 1,134	72.2
39906	PC Hardware	\$ 17,736	\$ 25,183	70.4
39907	PC Software	\$ 8,974	\$ 14,283	159.2
	Total	\$ 62,654	\$ 88,063	140.6
Owensboro Operations				
36700 40	Trans Mains Cathodic Protection	\$ 2,594	\$ -	0.0 Deferred
36701 83	US 60 E Relocation Reimburse	\$ -	\$ (62,790)	#####
36900 20	Fairview Dr Reg Sta	\$ -	\$ 1,417	#####
37400 20	Land Mosleyville PS	\$ -	\$ 3,276	#####
37600 40	Mains Cathodic Protection	\$ 45,635	\$ 17,612	38.6
37600 40	Mains CP Retirement	\$ 176	\$ 6	3.4
37601 10	Blanket Mains- Stl Sys Improv	\$ 48,113	\$ 24,107	50.1
37601 20	Newbolt Rd. 4" HP	\$ 180,004	\$ 254,483	141.4
37601 30	Blanket Stl Mains Leakage	\$ 76,635	\$ 58,413	76.2
37601 98	Mains Stl Retirement	\$ 11,327	\$ 10,381	91.6
37602 10	Mains PE Sys Improv	\$ 315,321	\$ 320,783	101.7
37602 20	Mains PE Whitesville KY 54 Reloc	\$ 119,109	\$ 220,654	185.3
37602 30	Mains PE Leakage	\$ 26,528	\$ 23,308	87.9
37602 81	Main Ext Forfeitures	\$ (20,515)	\$ (25,461)	124.1
37602 98	Main PE Retirement	\$ 5,094	\$ 5,179	101.7
37800 20	M&R Sta Yager Mat'l	\$ -	\$ 6,745	#####
37900 20	Owensboro TB # 5 Reg Sta	\$ 131,000	\$ 90,618	69.2
37900 98	Retire Dublin Reg Sta	\$ 2,000	\$ 1,950	97.5
38000 10	Services New	\$ 532,122	\$ 557,316	104.7
38000 30	Services Leakage	\$ 196,500	\$ 242,968	123.6
38000 98	Services Retirement	\$ 89,375	\$ 98,948	110.7
38200 10	Meter Installations New	\$ 44,016	\$ 245,396	557.5
38200 20	Meter Installations Replace	\$ 130,214	\$ 138,913	106.7
38200 98	Meter Retirements	\$ 16,425	\$ 30,998	188.7
38700	Other Equipment	\$ 10,472	\$ 11,098	106.0
39000	Structures & Improv Bon Harbor	\$ 10,136	\$ 9,639	95.1
39200	Vehicles	\$ 331,370	\$ 271,336	81.9
39200 98	Vehicles Retire /Salvage	\$ (27,500)	\$ (6,200)	22.5

39400	Tools, Shop Equipment	\$ 4,044	\$ 3,306	81.8
39700	Communication Equip	\$ 639	\$ 527	82.4
	Total	\$ 2,280,834	\$ 2,554,925	112.0

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				

Owensboro Storage & Transmission

35100 10	Structures & Improvements	\$ 7,370	\$ 6,550	88.9
35100 20	Structures & Improvements	\$ 937	\$ 950	101.4
35100 98	Structures Retirements	\$ 800	\$ 589	73.6
35200 20	Well Workovers	\$ 678,551	\$ 472,419	69.6
35200 40	Well Workovers	\$ 12,073	\$ 9,844	81.5
35200 98	Well Work Retirement	\$ 23,993	\$ 1,565	6.5
35400 20	Compressor Station Equip	\$ 32,750	\$ 26,294	267.1
35400 98	Compressor Station Equip Retire	\$ 7,682	\$ 941	3.6
35600 20	Purification Equip	\$ 6,578	\$ 15,384	233.9
35600 98	Purification Equip Retirement	\$ -	\$ 99	#####
36600 20	Structures ANR Intertie	\$ 28,958	\$ 19,721	68.1
36700 40	Cathodic Protection	\$ -	\$ 4,106	#####
36701 20	Madisonville 8" Loop	\$ 949,147	\$ 68,706	7.2
36701 20	ANR Bon Harb/ Kirkwood Intertie	\$ 73,796	\$ 91,159	123.5
36701 30	Madisonville 6" Replacement	\$ 37,860	\$ 41,417	109.4
36701 98	Madisonville 6" Retire	\$ 1,080	\$ 525	48.6
36900 20	M&R Sta-ANR Intertie	\$ 578,005	\$ 211,020	36.5
37100	Other Equipment	\$ 9,982	\$ 9,706	97.2
37601 20	Replace Cadiz TB	\$ 5,879	\$ 1,740	29.6
37601 98	Replace Cadiz TB Retirement	\$ 4,834	\$ 860	17.8
38700	Other Equipment	\$ 4,176	\$ 4,374	104.7
39200	Vehicles	\$ 79,564	\$ 74,719	93.9
39200 98	Vehicles -Retire-Salvage	\$ (7,500)	\$ -	0.0
39400	Tools Shop Equip	\$ 18,697	\$ 17,542	93.8
39400 98	Tools Shop Equip Retire/Salvage	\$ (999)	\$ -	
39600	Power Operated Equipment	\$ 37,966	\$ 34,426	90.7
	Total Resp Ctr	\$ 2,592,179	\$ 1,114,656	43.0

WKG Measurement Center

Combined with WKG Tech Services

35500 20	M&R Equipment			#####
37000	Communication Equip			#####
38100 10	Meters, New			#####
38100 20	Meters, Replacement			#####
38300 10	House Regs,new			#####

38300 20	House Regs- Replacement	#####
38500 20	Ind M&R Equip Public Improve	#####
39009	Improvements- Leased Premises	#####
39200	Vehicles	#####
39400	Tools, Shop Equip	#####
39700	Communication Equip	#####
39705	Communication Equip- Telemetry	#####
39905	Mainframe Hardware	#####
39906	PC Hardware	#####
39907	PC Software	#####
99800	Retirements & Salvage	#####
	Total	\$ - \$ - #####

WKG Technical Services

35200 10	Wells	\$ 24,314	\$ 23,676	97.4
39100	Office Furniture & Equipment	\$ 9,259	\$ 9,042	97.7
39103	Office Machines	\$ 17,679	\$ 12,097	68.4
39200	Transportation Equipment	\$ 85,329	\$ 46,270	54.2
39200	Vehicle Retire / Salvage	\$ (7,500)	\$ (6,719)	89.6
39700	Communication Equipment	\$ 459	\$ 457	99.5
39705	Commun EquipTelemeter	\$ 1,048	\$ -	0.0
39800	Miscellaneous Equipment	\$ -	\$ 2,312	#####
39906	PC Hardware	\$ 113,809	\$ 93,953	82.6
39907	PC Software	\$ 10,207	\$ 13,909	136.3
39908	AM/FM Software	\$ 262,731	\$ -	0.0 Deferred
	Total	\$ 517,335	\$ 194,996	37.7

Madisonville Operations

36700 40	Transm Cathodic Protection	\$ 49,009	\$ 19,288	39.4
36701 10	TP Mains - WK Training Ctr 4"	\$ -	\$ 343,114	#####
36701 30	TP Mains Leakage	\$ -	\$ 1,170	#####
36900 10	M & R Station Equip Rev	\$ -	\$ 88,436	#####
36900 20	M & R Station Equip Non-Revenu	\$ 13,310	\$ 235	1.8
37600 40	Cathodic Protection	\$ 24,235	\$ 19,493	80.4
37601 20	Mains- Public (Hwy) Relocations	\$ 252,135	\$ -	0.0 Deferred
37601 30	Mains- Leakage	\$ 183,400	\$ 171,634	93.6
37601 83	Main Relocat Reimbursement	\$ (1)	\$ (7,000)	#####
37601 98	Main Retirements	\$ 11,997	\$ 6,190	51.6
37602 10	Mains PE Revenue	\$ 181,390	\$ 139,904	77.1
37602 20	Mains- PE Public (Hwy) Relocatio	\$ -	\$ 1,594	#####
37602 30	Mains Install PE for Leakage	\$ 34,060	\$ 71,196	209.0
37602 81	Main Ext Forfeiture	\$ (30,360)	\$ (24,964)	82.2
37602 83	Main Reimbursement	\$ -	\$ (2,202)	#####
37602 98	Main PE Retirements	\$ 10,000	\$ 3,113	31.1
37800 20	M&R Sta Equipment	\$ 22,869	\$ 28,979	126.7

37800 98	M&R Sta Retirement	\$ 400	\$ -	0.0
37900 10	M&R Sta Equip- City Gate	\$ -	\$ 19,249	#####
37900 20	City Gate M&R Sta Pub Impr	\$ 1,703	\$ 1,863	109.4
38000 10	Services- New	\$ 556,292	\$ 515,921	92.7
38000 20	Services Relocate	\$ 39,274	\$ -	0.0 Deferred
38000 30	Services- Leakage	\$ 170,837	\$ 94,950	55.6
38000 98	Services- Retirements	\$ 38,481	\$ 45,011	117.0
38200 10	Meter Installations New	\$ 33,353	\$ 123,789	371.1
38200 20	Meter Set Replacement	\$ 113,001	\$ 94,158	83.3
38200 98	Meter Set Retirement	\$ 14,760	\$ 26,373	178.7
38700	Other Equipment	\$ 5,359	\$ 7,774	145.1
39009	Improvements- Leased Mad'vl WH	\$ 3,859	\$ 3,937	102.0
39100	Office Furniture & Equipment	\$ 2,758	\$ 1,553	56.3
39103	Office Machines	\$ 4,368	\$ 3,108	71.1
39200	Vehicles	\$ 262,787	\$ 238,980	90.9
39200 98	Vehicles Retire / Salvage	\$ (25,000)	\$ (18,168)	72.7
39400	Tools, Shop Equip	\$ 24,034	\$ 24,521	102.0
39400 98	Tools, Shop Equip	\$ 4	\$ 99	#####
99800	Retirements	\$ -	\$ (250)	#####
	Total	\$ 1,998,314	\$ 2,043,046	102.2

Paducah Operations

36701 20	TP Mains- Relocation	\$ -	\$ 22,326	#####
36701 98	TP Mains- Retirement	\$ -	\$ 1,115	#####
36900 20	M&R Sta	\$ 125,734	\$ 138,655	110.3
37600 40	Cathodic Protection	\$ 59,493	\$ 19,571	32.9
37600 83	Mains Reimbursement	\$ -	\$ (6,350)	#####
37600 40	C Prot Retirement	\$ 30	\$ (890)	#####
37601 20	Mains Relocation (Hwy)	\$ 304,743	\$ 410,074	134.6
37601 30	Mains	\$ 83,407	\$ 69,890	83.8
37601 81	Main Extension Forfeiture	\$ (6,866)	\$ (3,750)	54.6
37601 83	Main Public Works Reimburseme	\$ -	\$ (45,738)	#####
37601 98	Main Retirement	\$ 4,202	\$ 10,292	244.9
37602 10	Mains PE Revenue	\$ 410,082	\$ 348,645	85.0
37602 20	Mains- PE Public (Hwy) Relocatio	\$ 157,746	\$ 151,967	96.3
37602 30	Mains Install PE for Leakage (Cl)	\$ 20,100	\$ 23,196	115.4
37602 81	Main Ext Forfeiture	\$ (59,914)	\$ (52,386)	87.4
37602 83	Main Reimbursement	\$ -	\$ (47,148)	#####
37602 98	Main PE Retirements	\$ 1,500	\$ 1,992	132.8
37800 10	M&R Sta Equip	\$ -	\$ 6,616	#####
37900 20	M&R Sta City Gate	\$ 1,384	\$ 56	4.0
38000 10	Services- New	\$ 442,518	\$ 603,179	136.3
38000 30	Services- Leakage	\$ 42,051	\$ 98,961	235.3
38000 98	Services- Retirements	\$ 30,600	\$ 55,317	180.8
38200 10	Meter, Reg Installations	\$ 39,169	\$ 96,081	245.3
38200 20	Meter, Reg Replacements	\$ 84,364	\$ 25,552	30.3
38200 98	Meter, Reg Retirements	\$ 13,050	\$ 10,125	77.6

38500 20	Industrial Measuring	\$ 3,930	\$ 5,087	129.4
38600 20	Other Prop. On Customer's	\$ -	\$ 11,799	#####
38600 83	Other Prop. On Customer's	\$ -	\$ (6,106)	#####
38700	Other Equipment	\$ 8,407	\$ 8,049	95.7
39009	Improvements- Leased Premises	\$ 12,791	\$ 11,282	88.2
39200	Vehicles	\$ 158,879	\$ 122,694	77.2
39200 98	Vehicles Retire /Salvage	\$ (17,500)	\$ (8,180)	46.7
39400	Tools, Shop Equip	\$ 9,757	\$ 14,878	152.5
39600	Power Operated Equip	\$ 21,592	\$ 22,524	104.3
39700	Comm Equip Tel	\$ 347	\$ -	0.0
	Total	\$ 1,951,596	\$ 2,119,373	108.6

Bowling Green Operations

36700 40	Transm Mains- Cathodic Protectio	\$ 2,000	\$ -	0.0 Deferred
36900 20	M&R Sta	\$ 39,333	\$ 20,209	51.4
36900 98	M&R Sta Retire	\$ 500	\$ 534	106.8
37600 40	Mains- Cathodic Protection	\$ 15,065	\$ 19,962	132.5
37601 10	Mains System Improv	\$ 102,653	\$ 77,541	75.5
37601 30	Mains- Leakage	\$ 172,744	\$ 330,472	191.3
37601 81	Main Extension Forfeiture	\$ (11,464)	\$ (10,167)	88.7
37601 98	Main Retirements	\$ 9,525	\$ 27,765	291.5
37602 10	Mains PE Revenue	\$ 675,000	\$ 385,791	57.2
37602 20	Mains- PE Public (Hwy) Relocatio	\$ 5,961	\$ 4,734	79.4
37602 30	Mains Install PE for Leakage	\$ 77,830	\$ 181,766	233.5
37602 81	Main PE Ext Forfeiture	\$ (45,156)	\$ (35,527)	78.7
37602 98	Main Retirements	\$ 2,563	\$ 1,252	48.8
37800 10	Meas. & Reg Sta Equip	\$ 2,057	\$ 6,697	325.6
38000 10	Services-New	\$ 548,450	\$ 541,209	98.7
38000 30	Services- Leakage	\$ 187,330	\$ 306,483	163.6
38000 30	Services-Retire	\$ 50,000	\$ 114,458	228.9
38200 10	Meter Installations	\$ 62,225	\$ 238,910	383.9
38200 20	Meter Replacements	\$ 97,268	\$ 117,750	121.1
38200 98	Meter Retirements	\$ 13,500	\$ 17,613	130.5
38500 10	Ind M&R Equip Sys Improv	\$ -	\$ 12,542	#####
38700	Other Equipment	\$ 2,557	\$ 3,637	142.2
39000	Structures and Improvements	\$ 15,720	\$ 16,395	104.3
39009	Improvements - lease pre	\$ 5,351	\$ 5,605	104.8
39100	Office Furniture & Equipment	\$ 54,886	\$ -	0.0 Deferred
39103	Office Machines	\$ 4,109	\$ 1,770	43.1
39200	Vehicles	\$ 156,065	\$ 162,935	104.4
39200 98	Vehicles Rtire / Salvage	\$ (17,500)	\$ (1,900)	10.9
39400	Tools, Shop Equip	\$ 5,761	\$ 6,529	113.3
39700	Communication Equipment	\$ 563	\$ -	0.0
39702	Communication Equip- Radios	\$ -	\$ 5,988	#####
39702 98	CommEquip- Radios Retire	\$ -	\$ 205	#####
	Total	\$ 2,234,896	\$ 2,561,158	114.6

Danville Operations

36600 10	Structures & Improvements	\$ 1,850	\$ 1,809	97.8
36700 40	Trans Mains-Cathodic Protection	\$ 3,900	\$ -	0.0 Deferred
36701 30	Replace 12" L-133	\$ 311,807	\$ 7,379	2.4 Deferred
36701 98	Retire 12" L-133	\$ 512	\$ -	0.0 Deferred
39900 20	Meas. & Reg	\$ 71,157	\$ -	0.0 Deferred
39900 98	Meas. & Reg Retire	\$ 3,240	\$ -	0.0 Deferred
37600 40	Mains- Cathodic Protection	\$ 32,500	\$ 37,383	115.0
37600 98	Mains- Cathodic Protection	\$ -	\$ 87	#####
37601 10	Mains- Stl Sys Improve	\$ 2,000	\$ 147,639	#####
37601 20	Mains- Public (Hwy) Relocat	\$ 12,556	\$ 13,075	104.1
37601 30	Mains- Leakage	\$ 87,508	\$ 172,237	196.8
37601 83	Mains- Pub Works Reimbursemen	\$ (7,840)	\$ (25,149)	320.8
37601 98	Mains- Retirement	\$ 2,488	\$ 11,113	446.7
37602 10	Mains PE Revenue	\$ 405,501	\$ 262,933	64.8
37602 20	Mains- PE Public (Hwy) Relocatio	\$ 75,878	\$ 16,848	22.2
37602 30	Mains Install PE for Leakage	\$ 15,000	\$ (65,441)	#####
37602 81	Main PE Ext Forfeiture	\$ (25,255)	\$ (16,645)	
37602 83	Main PE Pub Works Reimburse	\$ (50,175)	\$ -	
37602 98	Main Retirements	\$ 680	\$ 197	
37800 10	Meas. & Reg	\$ -	\$ 316	#####
38000 10	Services- New	\$ 649,695	\$ 651,909	100.3
38000 30	Services- Leakage	\$ 93,565	\$ 137,369	146.8
38000 98	Services- Retirements	\$ 33,425	\$ 45,574	136.3
38200 10	Meter Installations	\$ 63,273	\$ 147,514	233.1
38200 20	Meter Replacements	\$ 115,542	\$ 137,182	118.7
38200 98	Meter Retirements	\$ 13,050	\$ 19,035	145.9
38700	Other Equipment	\$ 16,517	\$ 14,720	89.1
39009	Improv Leased Premises	\$ 4,441	\$ 3,856	86.8
39100	Office Furniture & Equip- Danville	\$ 37,967	\$ 3,115	8.2
39103	Office Machines- Danville	\$ 1,987	\$ 2,092	105.3
39200	Vehicles	\$ 251,375	\$ 239,439	95.3
39200 98	Vehicles Retire /Salvage	\$ (27,500)	\$ (12,888)	46.9
39400	Tools, Shop Equip	\$ 8,498	\$ 9,098	107.1
39600	Power Op Equip- Forklift	\$ 18,152	\$ 15,992	88.1
39603	Ditchers & Trenchers	\$ 61,681	\$ 50,842	82.4
39603 98	Ditchers & Trenchers Retire	\$ (1,100)	\$ (4,000)	363.6
	Total	\$ 2,283,875	\$ 2,024,629	88.6

WKG Overheads

39900		\$ 2,673,677	\$ 2,384,377	89.2
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	Grand Total	\$ 16,595,360	\$ 15,085,222	90.9
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WKG CAPITAL BUDGET PROJECTS FY 1998

Completion Percentage

Budget No.	Description	Budget Amount	Expenditure Amount	Completion %
Operating Area				
WKG Company Office				
39200 98	Vehicles Retire /Salvage	\$ -	\$ (10,392)	#####
39700	Communication Equip	\$ 9,700	\$ 9,392	96.8
39906	PC Hardware	\$ -	\$ 25,978	#####
39907	PC Software	\$ 900	\$ -	0.0
39908	Application Software	\$ -	\$ 40,846	#####
	Total	\$ 10,600	\$ 65,824	621.0
Owensboro Operations				
36700	Trans Mains Cathodic Protection	\$ 1,000	\$ -	0.0
36701	TP Mains Steel- Public Reloc	\$ 7,650	\$ -	0.0 Deferred
37600 40	Mains Cathodic Protection	\$ 33,864	\$ 26,661	78.7
37600 98	Cathodic Protection Retirement	\$ 50	\$ 19	38.0
37601 10	Mains - Stl Sys Improv	\$ 112,829	\$ 92,943	82.4
37601 20	Mains - Stl- Pub Improv	\$ 100,500	\$ 64,267	63.9
37601 30	Mains - Stl - Repl-Leakage	\$ 48,600	\$ 72,868	149.9
37601 83	Mains - Stl- Pub Works Reimburs	\$ -	\$ (18,877)	#####
37601 98	Mains - Steel- Retirements	\$ 20,836	\$ 14,860	71.3
37602 10	Mains - Plastic Sys Improv	\$ 215,000	\$ 195,379	90.9
37602 20	Mains - Plastic Pub Improv	\$ 152,959	\$ 82,516	53.9
37602 30	Mains - Plastic Leakage	\$ 19,200	\$ 15,360	80.0
37602 81	Mains - Plastic Reimbursements	\$ (14,898)	\$ (13,548)	90.9
37602 83	Mains - Plastic Reimbursements	\$ (3)	\$ (7,195)	#####
37602 98	Mains - Plastic Retirements	\$ 900	\$ 3,061	340.1
37800 20	Meas and Reg. Sta Equipment	\$ 4,600	\$ 5,369	116.7
37800 98	M&R Sta Retirement	\$ 50	\$ 39	78.0
38000 10	Services System Improvement	\$ 400,649	\$ 409,377	102.2
38000 30	Services Leakage	\$ 87,000	\$ 202,722	233.0
38000 98	Services Retirement	\$ 45,000	\$ 103,344	229.7
38200 10	Meter Installations New	\$ 58,179	\$ 172,671	296.8
38200 20	Meter Installations Public Improv	\$ 75,640	\$ 82,883	109.6
38200 98	Meter Retirements	\$ 19,395	\$ 45,932	236.8
38700	Other Equipment	\$ 1,442	\$ 1,398	96.9
39103	Office Machines	\$ 582	\$ 522	89.7
39200	Vehicles	\$ -	\$ 2,393	#####
39200 98	Transportation Equipment Retire	\$ -	\$ (26,645)	#####
39400	Tools, Shop Equipment	\$ 3,763	\$ 3,697	98.2

Total \$ 1,394,787 \$ 1,532,016 109.8

Budget No.	Description	Budget Amount	Expenditure Amount	Expenditure %
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Operating Area

Owensboro Storage & Transmission

36701 20	Spencer Co 4" Relocation	\$ -	\$ 4,877	#####
39200	Vehicles	\$ -	\$ (6,689)	#####
	Total Resp Ctr	\$ -	\$ (1,812)	#####

WKG Measurement Center

38500 20	Ind M&R Equip Public Improve	\$ -	\$ 5,529	#####
38500 83	Ind M&R Equip Reimbursement	\$ -	\$ (19,234)	#####
	Total	\$ -	\$ (15,517)	#####

WKG Technical Services

35100	Structures & Improv	\$ 3,501	\$ 3,072	87.7
36900 20	Measuring & Reg Station Equip	\$ 80,210	\$ 93,680	116.8
36900 98	Measuring & Reg Station Equip	\$ 1	\$ 1,309	#####
37601	Mains - Steel	\$ 0	\$ 871	#####
38100 10	Meters	\$ 847,275	\$ 642,338	75.8
38100 98	Meters	\$ 106,500	\$ 38,535	36.2
38300 10	House Regulators	\$ 331,961	\$ 134,766	40.6
38500 20	Industrial Measuring and	\$ 280,776	\$ 179,290	63.9
38500 83	Industrial Measuring and	\$ (150,000)	\$ (23,412)	15.6
38500 98	Industrial Measuring and	\$ 6,000	\$ 2,741	45.7
38700	Other Equipment (Distrib)	\$ 83,790	\$ -	0.0
39200	Transportation Equipment	\$ -	\$ (2,212)	#####
39400	Tools Shop and Garage Equip	\$ 1,450	\$ 1,354	93.4
39705	Communication Equipment	\$ 1,050	\$ -	0.0
39908	Application Software- AM/FM	\$ -	\$ 59,643	#####
	Total	\$ 1,592,514	\$ 1,131,975	71.1

Madisonville Operations

36700 40	Transm Rectifier & Groundbed	\$ 1,092	\$ -	0.0 Deferred
36701 10	TP Mains - Sys Improv	\$ -	\$ 249,137	#####
36701 20	TP Mains - Pub Improv	\$ -	\$ 3,479	#####
36701 30	TP Mains - Steel Leakage	\$ 15,742	\$ 3,313	21.0
36701 83	Mains - Stl Reimbursements	\$ -	\$ (12,321)	#####

36900 30	M & R Station Equip	\$ -	\$ 1,072	#####
37600 40	Mains - Cathodic Protection	\$ 11,012	\$ 14,819	134.6
37601 10	Mains - Stl Sys Improv	\$ 10,189	\$ 16,078	157.8
37601 20	Mains - Stl- Pub Improv	\$ 199,899	\$ 79,398	39.7
37601 30	Mains - Stl - Repl-Leakage	\$ 62,100	\$ 39,260	63.2
37601 98	Mains - Steel- Retirements	\$ 6,644	\$ 6,331	95.3
37602 10	Mains - Plastic Sys Improv	\$ 85,678	\$ 68,091	79.5
37602 20	Mains - Plastic Pub Improv	\$ 5,265	\$ 6,458	122.7
37602 30	Mains - Plastic Leakage	\$ 49,474	\$ 14,269	28.8
37602 81	Mains - Plastic Reimbursements	\$ (300,415)	\$ (264,592)	88.1
37602 98	Mains - Plastic Retirements	\$ 613	\$ 442	72.1
37800 20	M&R Sta Equipment	\$ 4,059	\$ 4,078	100.5
38000 10	Services New	\$ 263,421	\$ 259,224	98.4
38000 30	Services Leakage	\$ 75,345	\$ 31,389	41.7
38000 98	Services Retirements	\$ 33,425	\$ 31,272	93.6
38200 10	Meter Installations New	\$ 46,858	\$ 35,959	76.7
38200 20	Meter Set Replacement	\$ 48,628	\$ 63,372	130.3
38200 98	Meter Set Retirements	\$ 12,960	\$ 8,930	68.9
38500 10	Indust M&R Equip	\$ -	\$ 20,349	#####
38700	Other Equipment	\$ 876	\$ 847	96.7
39200	Vehicles	\$ -	\$ (15,964)	#####
39400	Tools, Shop Equip	\$ 6,552	\$ 4,718	72.0
	Total	\$ 639,417	\$ 669,408	104.7

Paducah Operations

36600	Structures & Improvements	\$ 0	\$ 15,868	#####
36700 40	TP Mains - Cathodic Protection	\$ 500	\$ 0	0.0 Deferred
36701 30	TP Mains - Steel Leakage	\$ 2,475	\$ -	0.0
36900 20	M&R Sta Public Improvement	\$ -	\$ 2,893	#####
37600 40	Mains- Cathodic Protection	\$ 15,000	\$ 8,211	54.7
37601 10	Mains- System Improve	\$ 62,010	\$ 53,734	86.7
37601 20	Mains- Public Improve	\$ 47,390	\$ 36,510	77.0
37601 30	Mains- Leakage	\$ 28,350	\$ 1,061	3.7
37601 83	Mains - Steel Reimbursements	\$ -	\$ (70,076)	#####
37601 98	Mains - Steel- Retirements	\$ 152	\$ 3,092	#####
37602 10	Mains - Plastic Sys Improv	\$ 212,500	\$ 312,473	147.0
37602 20	Mains - Plastic Pub Improv	\$ 5,458	\$ 11,289	206.8
37602 30	Mains - Plastic Leakage	\$ 18,000	\$ 4,715	26.2
37602 81	Mains - Plastic Reimbursements	\$ (35,192)	\$ (24,143)	68.6
37602 83	Mains - Plastic Reimbursements	\$ (24,261)	\$ (12,956)	53.4
37602 98	Mains - Plastic Retirements	\$ 151	\$ 3,113	#####
37800 10	Meas and Reg. Sta. Equip	\$ -	\$ 12,184	#####
38000 10	Services- New	\$ 339,500	\$ 375,756	110.7
38000 30	Services- Leakage	\$ 33,000	\$ 19,910	60.3
38000 98	Services Retirements	\$ 18,000	\$ 29,514	164.0
38200 10	Meter Installations	\$ 90,125	\$ 72,725	80.7
38200 20	Meter Replacements	\$ 58,509	\$ 79,629	136.1

38200 98	Meter Installations	\$ 15,705	\$ 9,507	60.5
38500 10	Industrial Measuring and	\$ -	\$ 7,958	#####
38700	Other Equipment	\$ 1,402	\$ 1,213	86.5
39200 98	Vehicle Retirement	\$ -	\$ (13,132)	#####
39400	Tools, Shop Equip	\$ 450	\$ -	0.0
	Total	\$ 889,224	\$ 941,048	105.8

Bowling Green Operations

36700 40	Transm Mains- Cathodic Protecti	\$ 708	\$ -	0.0
36701 30	TP Mains - SteelLeakage	\$ 9,908	\$ 4,505	45.5
37600 40	Mains- Cathodic Protection	\$ 23,647	\$ 16,102	68.1
37601 10	Mains System Improv	\$ 39,768	\$ 621,996	#####
37601 20	Mains- Public Improv	\$ -	\$ 36,957	#####
37601 30	Mains- Leakage	\$ 123,525	\$ 210,403	170.3
37601 81	Mains - Steel Reimbursement	\$ (45,612)	\$ (44,330)	97.2
37601 98	Mains - Steel Retirement	\$ 7,756	\$ 16,311	210.3
37602 10	Mains - Plastic Sys Improv	\$ 634,039	\$ 507,213	80.0
37602 30	Mains - Plastic Leakage	\$ 80,125	\$ 127,828	159.5
37602 81	Mains - Plastic Reimbursements	\$ (152,280)	\$ (151,507)	99.5
37602 98	Mains - Plastic Retirements	\$ 887	\$ 664	74.9
37800 10	M&R Sta Sys Improv	\$ -	\$ 12,803	#####
37900 20	City Gate M&R Sta Equip Pub I	\$ 45,554	\$ 5,492	12.1 Deferred
38000 10	Services- New	\$ 450,877	\$ 482,356	107.0
38000 30	Services- Leakage	\$ 148,718	\$ 161,718	108.7
38000 98	Services	\$ 75,625	\$ 58,330	77.1
38200 10	Meter Installations	\$ 106,558	\$ 244,720	229.7
38200 20	Meter Replacements	\$ 84,280	\$ 50,904	60.4
38200 98	Meter Installations	\$ 21,807	\$ 14,422	66.1
38500 10	Ind M&R Equip Sys Improv	\$ 23,892	\$ 2,123	8.9
39103 98	Office Mach Retirements	\$ -	\$ (619)	#####
38700	Other Equipment	\$ 1,923	\$ 2,023	105.2
39200	Vehicles	\$ -	\$ (29,034)	#####
39400	Tools, Shop Equip	\$ 7,479	\$ 3,634	48.6
39600	Power Operated Equip	\$ 511	\$ (520)	#####
39701	Commun Equip- Mobile Radio	\$ 5,460	\$ -	0.0
39702	Commun Equip - Fixed Base Rad	\$ 4,353	\$ 4,846	111.3
	Total	\$ 1,699,508	\$ 2,359,340	138.8

Danville Operations

36700 40	Trans Mains-Cathodic Protection	\$ 2,250	\$ -	0.0 Deferred
36701 20	Mains - Steel Pub Improv	\$ 23,500	\$ -	0.0 Deferred
36900	Measuring & Reg. Sta	\$ 8,000	\$ -	0.0 Deferred
37600	Mains- Cathodic Protection	\$ 24,250	\$ 11,925	49.2
37601 10	Mains- Sys Improve	\$ 25,900	\$ 9,437	36.4
37601 20	Mains- Public Improve	\$ -	\$ 8,574	#####

37601 30	Mains- Leakage	\$ 43,200	\$ 114,765	265.7
37601 81	Mains - Steel Reimbursements	\$ (58,764)	\$ (5,049)	8.6
37601 98	Mains - Steel- Retirements	\$ 300	\$ 4,254	#####
37602 10	Mains - Plastic Sys Improv	\$ 280,262	\$ 133,530	47.6
37602 20	Mains - Plastic Pub Improv	\$ 5,168	\$ 17,629	341.1
37602 30	Mains - Plastic Leakage	\$ 4,800	\$ 26,525	552.6
37602 81	Mains - Plastic Reimbursements	\$ (47,043)	\$ (40,459)	86.0
37602 83	Mains - Plastic Reimbursements	\$ -	\$ (10,408)	#####
37602 98	Mains - Plastic Retirements	\$ 450	\$ 1,042	231.6
37900 20	Harrodsburg M&R Sta Repl	\$ -	\$ 28,612	#####
38000 10	Services- New	\$ 492,901	\$ 319,214	64.8
38000 30	Services- Leakage	\$ 44,400	\$ 62,777	141.4
38000 98	Services Retirements	\$ 22,500	\$ 41,611	184.9
38200 10	Meter Installations	\$ 73,947	\$ 78,978	106.8
38200 20	Meter Replacements	\$ 57,146	\$ 90,037	157.6
38200 98	Meter Inst Retirements	\$ 15,480	\$ 30,886	199.5
38500 10	Ind M&R Sta Caterpillar	\$ 35,100	\$ 15,680	44.7
38700	Other Equipment	\$ 8,555	\$ 2,140	25.0
39100	Office Furniture & Equip- Danville	\$ -	\$ (1,342)	#####
39200 98	Vehicle Retirements	\$ -	\$ (23,561)	#####
39400	Tools, Shop Equip	\$ 8,365	\$ 526	6.3
	Total	\$ 1,070,667	\$ 917,323	85.7
	WKG Overheads			
39900		\$ 2,897,717	\$ 3,860,000	133.2
	Grand Total	\$ 10,194,434	\$11,459,605	112.4

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 29 a through c
Witness: David H. Doggette

Data Request:

Refer to the Application, Volume 3 of 10, Tab 1, titled "FR 10(9)(b)," page 3 of 6, the forecasted test year capital budget.

a. Does Western assume that all the capital projects included on this schedule will be completed and included in rate base by the end of the forecasted test year?

Response:

Yes.

b. If yes to part (a), explain in detail the basis for this assumption and why it is reasonable.

Response:

Given the difficulty in predicting weather, WKG has found it prudent to base its capital budget spending on normal weather conditions, normal growth and prioritized as stated in Volume 2 of 10, Tab 5, Testimony of David H. Doggette, page 4. Therefore, deviation from capital spending normally would be related to prudent management as a result of abnormal weather conditions. To a certain degree deviations could also result from external factors such as delays in state highway projects.

c. If no to part (a), provide a schedule showing the amounts from the capital budget that Western included in the rate base by the end of the forecasted test year.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 30
Witness: Betty L. Adams

Data Request:

Refer to the Application, Volume 3 of 10, Tab 7, titled "FR 10(9)(h)2." Provide all the assumptions used by Western to determine the amounts shown for the base year, and the forecasted year, and the 2000 through 2003 fiscal years. Include an explanation as to why each assumption is reasonable.

Response:

See the assumptions discussed in the testimony and data requests responses, DR 13 a and b, DR 14 and DR 15 of Pat Reddy.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 31
Witness: Rebecca M. Buchanan

Data Request:

31. Refer to the Application, Volume 3 of 10, Tab 7, titled "FR 10(9)(h)4."
Provide a revision of this schedule that fixes the forecasted required rate of return at 9.97 percent for each year shown.

Response:

31.) See attached schedule "FR 10(9)(h)4" - Revised.

Western Kentucky Gas Company
Case No. 99-070

Forecasted Revenue Requirements

For the Test Year Twelve Months Ended December 31, 2000 & Four Forecasted Fiscal Years

FR 10(9)(h)4

Data: Base Period Forecasted Period

Type of Filing: Original Updated Revised

Workpaper Reference No(s):

Page 1 of 1

Witness: Buchanan

Line No.	Description	Test Period Supporting Schedule Reference	Forecast FY Supporting Schedule Reference	Test Period		FY 2000		FY 2001		FY 2002		FY 2003	
				Forecasted Revenue Requirement									
				\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	
1	Rate Base	B-1	FR10(9)(h)12	130,464	132,853	131,203	129,522	127,044					
2	Operating Income at Current Rates	C-1	FR10(9)(h)1	4,631	5,211	4,745	4,884	4,540					
3	Rate of Return at Current Rates (2 / 1)	J-1.1		3.55%	3.91%	3.62%	3.77%	3.57%					
4	Forecasted Required Rate of Return	J-1	FR10(9)(h)11	9.97%	9.97%	9.97%	9.97%	9.97%					
5	Required Operating Income (1 x 4)	C-1		13,009	13,245	13,081	12,913	12,666					
6	Operating Income Deficiency (5 - 2)	C-1		8,378	8,044	8,335	8,029	8,126					
7	Gross Revenue Conversion Factor	H	H	1.686137	1.686137	1.686137	1.686137	1.686137					
8	Revenue Deficiency (6 x 7)	C-1		14,128	13,564	14,055	13,539	13,703					
9	Operating Revenues at Current Rates	C-1	FR10(9)(h)1	120,503	120,558	120,999	121,768	122,454					
10	Revenue Required to Support Forecasted ROR (8 + 9)	C-1		134,631	134,122	135,054	135,307	136,157					

Note: Per Staff's direction, Capital Structure for all forecasted years assumes overall rate of return fixed at 9.97%.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 32
Witness: Gruber

Data Request:

Concerning Western Kentucky Gas Resources, Inc. ("WKG Resources"):

- a. Describe the nature of WKG Resources' business operations.
- b. Indicate when WKG Resources was established.
- c. Indicate whether any of Western's assets, liabilities, capital, or personnel were transferred to WKG Resources.

Response:

a. WKG Resources name was changed to Atmos Exploration and Production, Inc. effective April 29, 1999. Atmos Exploration and Production, Inc. has one natural gas supply agreement with a natural gas vehicle fueling station in Owensboro, Kentucky and storage field operation agreements with two industrial customers served by Western Kentucky Gas.

b. Western Kentucky Gas Resources (WKG Resources) was incorporated as Western Kentucky Gas Company in 1934. It provided local distribution service as Western Kentucky Gas Company pursuant to the Commission's jurisdiction until 1980. By Order of November 19, 1980, in Case No. 7975 the Commission approved the acquisition of Western Kentucky Gas Company by Texas American Energy (TAE). In a 1980 post-merger transaction, the name of Western Kentucky Gas Company was changed to Western Kentucky Gas Resources, Inc. at which time it became a subsidiary of TAE. WKG Resources has not provided any regulated utility services since that time. TAE provided distribution service in Kentucky through a division named Western Kentucky Gas Company which was not a separate corporate entity.

In Case No. 9992, TAE applied to the Commission for approval of an intra-corporate reorganization by which all of the assets and obligations of the Western Kentucky Gas Company division would be transferred to a corporate entity named Western Kentucky Utility. By Order of August 21, 1987, the Commission approved the reorganization. WKG Resources became a wholly owned subsidiary of Western Kentucky Utility pursuant to this reorganization. On December 18, 1987, in Case No. 10063, the Commission approved the

acquisition of Western Kentucky Utility by Atmos. At that time, WKG Resources became a wholly owned subsidiary of Atmos. In April 1999, the name of WKG Resources was changed to Atmos Exploration and Production, Inc.

c. None of Western's assets, liabilities or capital have been transferred or personnel currently dedicated to WKG Resources.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 33
Witness: Betty L. Adams

Data Request:

Refer to the Application, Volume 3 of 10. Explain why the operating income amounts shown for the test year (January 2000 – December 2000) on the following schedules are not in agreement:

- A. Tab 3, titled "FR 10(9)(d)."
- B. Tab 7, titled "FR 10(9)(h)1 and FR 10(10)(i)1."
- C. Tab 7, titled "FR 10(9)(h)4."

Response:

The difference in A and B above is that the provision for income taxes was removed from the "Total operating expenses" section in "FR10(9)(h)1" and "FR10(10)(I)1" and entered as a line item after "Income Before Taxes". This was changed to correctly format taxes after all income and expenses were derived as part of the taxes were not Operating Income related.

The difference between A and C includes rate making adjustments as shown on Schedule C-1 in FR 10(10)(c), Volume 10, Tab 3.



80000 SERIES
10% P.C.W.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 34 a
Witness: Betty Adams

Data Request:

34. Refer to the Application, Volume 9 of 10, Tab 2, titled "FR 10(9)(u)," Schedules 1 and 2. Provide the following information for Schedule 1 and Schedule 2:
 - a. An explanation of how the amounts shown under the column titled "WKG \$" were determined. Include any supporting workpapers, assumptions, and other documentation.

Response:

1. Considering the Base Year consists of six months of actual expenses and six months of projected expenses, the "WKG \$" column was calculated by adding:
 - a. October 1998 through March 1999 actual expenses by Shared Service Unit and,
 - b. Projected expenses by Shared Service Unit for the months of April 1999 through September 1999.
 - c. The actual expenses consist of items which, when possible, have been directly coded to WKG plus items which, when direct coding is not possible, have been allocated according to each Shared Service Unit's allocation method (See DR Items 34 a and b).
2. Considering the Forecasted Year consists of twelve months of projected expenses, the "WKG \$" column was calculated by:
 - a. Applying the approved WKG allocation percentage by Shared Service Unit to each Shared Service Unit's total projected expenses for the Forecasted Year.

See attached Response to DR 34 – Revision to FR10(9)(u) Schedules 1 and 2

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 34 b
Witness: Betty Adams

Data Request:

34. Refer to the Application, Volume 9 of 10, Tab 2, titled "FR 10(9)(u)," Schedules 1 and 2. Provide the following information for Schedule 1 and Schedule 2:
 - b. The determination of the percentages shown under the column titled "WKG %." Include any supporting workpapers, assumption, and other documentation.

Response:

1. Considering the Base Year consists of six months of actual expenses and six months of projected expenses, the "WKG %" column was calculated by:
 - a. Dividing the WKG actual expenses for the months of October 1998 through March 1999 plus the projected expenses of April 1999 through September 1999 by the total Atmos expenses for the same periods.
2. Considering the Forecasted Year consists of twelve months of projected expenses, the "WKG %" column was calculated by:
 - a. Utilizing the approved WKG allocation percentage by Shared Service Unit as set forth in each SSU's Contract with the Business Units.

See attached Response to DR 34 – Revision to FR10(9)(u) Schedules 1 and 2

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 34 c
Witness: Betty Adams

Data Request:

34. Refer to the Application, Volume 9 of 10, Tab 2, titled "FR 10(9)(u)," Schedules 1 and 2. Provide the following information for Schedule 1 and Schedule 2:
- c. For each Shared Service Unit listed on the schedule, an explanation of why the particular allocation methodology is reasonable for the allocation of the particular unit costs.

Response:

When determining allocation factors in a multi-jurisdictional utility like Atmos, we try to strike a balance between relative simplicity and understandability with having a reasonable amount of precision. The factors used for this reporting period were deemed by management to be reasonable and supportable without undue complexity.

- 1. Accounting expenses are allocated based on the following factors:
 - a. Number of states – the Tax department prepares individual tax returns by state and the Financial Reporting department prepares other state filings.
 - b. Number of employees – the Payroll department processes paychecks with each business unit having a different number of employees.
 - c. Number of invoices processed – the Accounts Payable department processes a different number of invoices for each business unit.
 - d. Number of hours worked – the Gas Accounting department based the total workload per business unit on recent.
 - e. Number of customers – the Financial Systems department services systems with capacities which are determined by how many customers are serviced by each business unit.
- 2. Planning & Budgeting
 - a. Number of hours worked – The number of hours worked per business unit is the most reasonable allocation.
- 3. Call Center
 - a. Number of customers – the number of calls handled for each business unit is directly related to the number of customers in each business unit.
- 4. Management Committee

- a. Average of all SSU allocations – since the Management Committee oversees all other SSU's and functions, the most reasonable allocation is an average of all the other SSU allocations.
5. Gas Control
 - a. Number of SCADA points – Gas delivery monitor points along the distribution system; reflects the diversity of the gas control function as it relates to each business unit.
 - b. Number of pipeline contracts – each business unit has a different number of pipeline contracts to manage.
 - c. Number of storage contracts – each business unit has a different number of storage contracts to manage.
 6. Gas Supply
 - a. Number of hours worked – the Forecasting and Administration functions of Gas Supply can best be measured by how many hours are spent on each business unit.
 - b. Number of storage contracts - each business unit has a different number of storage contracts to manage.
 - c. Bcf gas purchased – the Procurement function can be measured by how many Bcf is purchased for each business unit.
 - d. Number of supply contracts – the Procurement function can also be measured by how many supply contracts it must manage for each business unit.
 - e. Number of Electronic Bulletin Boards monitored – The Nominations department can be measured by how many Electronic Bulletin Boards it monitors for each business unit.
 - f. Number of nominations – The Nonimations department can also be measured by how many nominations are requested for each business unit.
 7. Human Resources
 - a. Functions such as Employment Services, Employee Relations, Employee Development and Employee Communications service a different number of employees within each business unit.
 - b. Total salary dollars – the Compensation Services function manages the incentive plan which is based on salary dollars.
 - c. Number of management positions – the Professional Development function provides management training for select employees of the business units.
 - d. Square footage of buildings – the Facilities function is allocated based on the square footage of buildings within each business unit.
 8. Information Technology
 - a. Number of employees – the Help Desk Support and Telecommunications functions support the differing number of employees within each business unit.
 - b. Number of customers – the Enterprise Servers Support and Information Systems Support functions service systems within each business unit which support a differing number of customers.

- c. Number of PC's – the PC Support function is allocated according to how many PC's each business unit maintains.
9. Internal Audit
 - a. Number of hours worked – The number of hours worked per business unit is the most reasonable allocation.
10. Investor Relations
 - a. Gross plant investment – This was determined to be the most reasonable methodology for this department.
11. Legal and Corporate Secretary
 - a. Number of hours worked – The number of hours worked per business unit is the most reasonable allocation.
 - b. Number of storage boxes archived – the Storage function archives different numbers of boxes for each business unit.
12. Rates
 - a. Number of hours worked The number of hours worked per business unit is the most reasonable allocation.
13. Billing & Remittance Processing
 - a. Number of customers – the Remittance Processing, Credit, and Collection functions all are directly related to how many customers each business unit has.
 - b. Number of payments processed – the Pay Center, Telepay, and Bank Draft functions all process customer payments and can be allocated in the same manner.
 - c. Number of statements processed – the Mass Mail function mails a different number of statements for each business unit.
14. Treasury, Risk Management & Purchasing
 - a. Number of employees – the Mail & Supply function delivers supplies to each business unit as ordered which is directly related to the number of employees per business unit.
 - b. Number of customers – the Treasury function manages short-term debt and equity based on the number of customers within each business unit.
 - c. Gross plant investment – the Treasury function manages long-term debt based on the gross plan investment of each business unit.
 - d. Dollars of revenue – insurance policies are based on revenue.
 - e. Number of purchase orders – the Purchasing function issues purchase orders for each business unit according to their material and supply needs.
 - f. Number of vehicles – the Fleet Administration function manages company vehicles for each business unit.

Shared Service Unit	WKG \$	WKG %	Methodology	WKG Oct-Mar	Total Oct-Mar	WKG Apr-Sep	Total Apr-Sep	WKG	Total
Accounting	825,460	14.8%	A, B, C, D, E	407,535	2,746,114	417,925	2,844,756	825,460	5,590,870
Planning & Budgeting	134,116	13.6%	D	77,936	568,878	56,180	417,230	134,116	986,108
Call Center	1,212,222	17.5%	E	571,316	3,264,664	640,906	3,662,320	1,212,222	6,926,984
Management Committee	885,431	16.6%	Y	522,719	3,166,006	362,712	2,166,360	885,431	5,332,366
Gas Control	124,150	23.4%	F, G, H	55,098	250,993	69,052	279,210	124,150	530,203
Gas Supply	367,276	24.7%	D, H, I, J, K, L, M	173,583	703,725	193,693	783,200	367,276	1,486,925
Human Resources	2,024,872	18.4%	B, N, O, P	986,190	4,800,587	1,038,682	6,220,976	2,024,872	11,021,563
Information Technology	936,215	17.7%	B, E, Q	467,271	2,642,380	468,944	2,645,999	936,215	5,288,379
Internal Audit	111,455	17.3%	D	50,104	288,534	61,351	354,025	111,455	642,559
Investor Relations	288,368	15.4%	R	117,219	761,248	171,149	1,115,125	288,368	1,876,373
Legal and Corporate Secretary	844,737	10.2%	D, E, X	517,343	6,162,131	327,394	2,096,579	844,737	8,258,710
Rates	143,132	10.8%	D	71,471	661,534	71,661	667,462	143,132	1,328,996
Billing & Remittance Processing	1,028,181	17.8%	E, S, T	275,655	1,520,295	752,526	4,263,696	1,028,181	5,783,991
Technical Services	15,087	15.6%	See Part 1	15,087	97,021	-	-	15,087	97,021
Treasury, Risk Mgmt & Purchasing	913,924	18.1%	B, E, R, U, V, W	543,247	2,710,287	370,677	2,349,176	913,924	5,059,463
Sub-Total	9,854,626	16.4%		4,851,774	30,344,397	5,002,852	29,866,114	9,854,626	60,210,511
Overhead Capitalized	(1,781,898)	16.6%	Y, Z	(892,620)	(5,400,000)	(889,278)	(5,309,502)	(1,781,898)	(10,709,502)
Maintenance	59,393	16.5%	See Part 1	59,393	359,301	-	-	59,393	359,301
Depreciation and Amortization	1,658,377	7.9%	E, Y, AA	1,177,375	15,587,467	481,002	5,535,498	1,658,377	21,122,965
Other	211,688	17.1%	Y	134,690	806,108	76,998	435,000	211,688	1,241,108
Total	10,002,186	13.8%		5,330,612	41,697,273	4,671,574	30,527,110	10,002,186	72,224,383
	(9,716,607)								

Total costs are a combination of direct charges and allocated charges.

Allocated charges are based on:

- A Number of states
- B Number of employees
- C Number of invoices processed
- D Hours worked
- E Number of customers
- F Number of SCADA points
- G Number of pipeline contracts
- H Number of storage contracts
- I Bcf gas purchased
- J Number of supply contracts
- K Number of Electronic Bulletin Boards monitored
- L Number of Nominations
- M Bcf gas stored
- N Total salary dollars
- O Number of management positions
- P Square footage of buildings
- Q Number of PC's
- R Gross plant investment
- S Number of payments processed
- T Number of statements processed
- U Dollars of revenue
- V Number of purchase orders
- W Number of vehicles
- X Number of storage boxes archived
- Y Average of all Shared Service Unit allocation percentages
- Z Capital budget breakdown
- AA Severance costs

Shared Service Unit	WKG \$	WKG %	Methodology	WKG	Total
Accounting	833,427	14.8%	A, B, C, D, E	833,427	5,641,990
Planning & Budgeting	111,600	13.5%	D	111,600	829,000
Call Center	1,272,133	17.5%	E	1,272,133	7,269,330
Management Committee	712,855	16.7%	Y	712,855	4,257,649
Gas Control	136,951	24.7%	F, G, H	136,951	553,760
Gas Supply	384,849	24.7%	D, H, I, J, K, L, M	384,849	1,556,140
Human Resources	2,090,632	16.7%	B, N, O, P	2,090,632	12,525,196
Information Technology	928,202	17.7%	B, E, Q,	928,202	5,237,344
Internal Audit	121,806	17.3%	D	121,806	702,880
Investor Relations	341,249	15.3%	R	341,249	2,223,419
Legal and Corporate Secretary	674,378	15.7%	D, E, X	674,378	4,304,202
Rates	158,870	10.7%	D	158,870	1,479,023
Billing & Remittance Processing	1,505,052	17.6%	E, S, T	1,505,052	8,527,392
Treasury, Risk Mgmt & Purchasing	760,962	15.8%	B, E, R, U, V, W	760,962	4,807,726
Sub-Total	10,032,966	16.7%		10,032,966	59,915,051
Overhead Capitalized	(1,605,750)	17.1%	Y, Z	(1,605,750)	(9,375,000)
Maintenance	-				
Depreciation and Amortization	1,473,750	9.5%	E, Y, AA	1,473,750	15,519,750
Taxes-Other	152,000	16.8%	Y	152,000	906,000
Total	10,052,966	15.0%		10,052,966	66,965,801

Total costs are a combination of direct charges and allocated charges.

Allocated charges are based on:

- A Number of states
- B Number of employees
- C Number of invoices processed
- D Hours worked
- E Number of customers
- F Number of SCADA points
- G Number of pipeline contracts
- H Number of storage contracts
- I Bcf gas purchased
- J Number of supply contracts
- K Number of Electronic Bulletin Boards monitored
- L Number of Nominations
- M Bcf gas stored
- N Total salary dollars
- O Number of management positions
- P Square footage of buildings
- Q Number of PC's
- R Gross plant investment
- S Number of payments processed
- T Number of statements processed
- U Dollars of revenue
- V Number of purchase orders
- W Number of vehicles
- X Number of storage boxes archived
- Y Average of all Shared Service Unit allocation percentages
- Z Capital budget breakdown
- AA Severance costs

The total of columns A through F is \$31,150,189. This amount is carried from WP B-2 B 09 to Schedule B-2.3, sheet 3 of 8, line 37, additions less retirements, that is \$31,722,633 less \$572,444 equals \$31,150,189 net. To this amount, add 16.657% of the Division 02 General Office net additions and transfers, which are found on Schedule B-2.3, sheet 4 of 8, line 32. Division 02 additions of \$20,622,549 plus transfers of <\$515> gives net General Office additions of \$20,622,034, multiplied by the 16.657% residual factor equals \$3,435,012 net.

Sched. B-2.3, p. 3 of 8, net additions & retirements	\$31,150,189	Div. 09
Sched. B-2.3, p. 4 of 8, net additions & transfers * 16.657%	<u>3,435,012</u>	Div. 02
Equals the net additions, retirements & transfers B-2.2, p.3	<u>\$34,585,201</u>	Total

For the **forecasted test period**, Schedule B-2.3, is the schedule that links the forecasted test period plant additions on B-2.2 with the capital budget projects shown in Volume 3 of 10, Tab 1, Exhibit DHD-1, page 3 of 6. Refer to Schedule B-2.3, Sheet 7 of 8, line 37 additions, for the Division 09 amount \$9,718,882. This agrees with the amount on DHD-1, page 3 of 6, line 91. To this amount, add 16.657% of the Division 02 General Office net additions, which are found on Schedule B-2.3, sheet 8 of 8, line 33. Net General Office Additions of \$10,992,001, multiplied by the 16.657% residual factor equals \$1,830,938 net.

Sched. B-2.3, p. 7 of 8, net additions	\$ 9,718,882	Div. 09
Sched. B-2.3, p. 8 of 8, net additions * 16.657%	<u>1,830,938</u>	Div. 02
Equals the net additions, retirements & transfers B-2.2, p.6	<u>\$11,549,819</u>	Total

35b.) The source documents for the base period Retirements/Reclassifications are attached, and numbered 35 b pages 1 through 18. A description of each retirement and transfer is attached and numbered 35 b pages 19 through 21.

Western Kentucky Gas Company
 Computation of 13 Month Average Plant Balances - Western Div. 03
 Workpaper WP-B-2 B 09
 Base Period 10/1/98 - 9/30/99

Line No.	Acct. No.	Account Title	A		B		C		D		E		F
			WKDG Div. 03 Plant Balance Sep-99 Projected	WKDG Direct Additions FY 99 Budgeted	WKDG adds April 1999	WKDG OH 88 expense 16.000%	WKDG OH FY 99 33.692%	WKDG OH FY 99 20.250%	02 OH FY 99	service program additional			
48		Distribution Plant											
49	374.10	Land Town Border	61,710										
50	374.30	Land Other	2,784										
51	374.20	Right of Way	44,872										
52	375.10	Structures & Improvements T.B.	106,376										
53	375.02	Structures & Improvements Other	0										
54	375.03	Improvements	7,518										
55	375.20	Land Rights	46,591										
56	376.00	Mains	71,878,855	19,466,304			311,409	655,751		394,121			
57	376.10	Meas. & Reg. Sta. Equipment General	2,137,306	150,490			24,078	50,703		30,474			
58	379.30	Meas. & Reg. Sta. Equipment T.B.	1,803,835	90,002			14,400	30,324		16,225			
59	380.00	Services	43,729,545	1,914,168			306,267	644,924		387,614			
60	381.00	retainers	18,839,620	488,201			78,112	164,485		98,859			
61	381.20	V & P Outages	106,524				0	0		0			
62	382.00	Meter Installations	14,004,066	474,696			75,951	159,935		96,125			
63	383.00	Regulators Service	3,610,207	106,634			17,061	36,927		21,593			
64	383.20	Regulators Relief	481,545				0	0		0			
65	384.00	House Reg. Installations	163,783	2,250			360	759		455			
66	385.10	Ind. Meas. & Reg. Sta. Equipment	3,059,017	74,400			11,934	25,067		15,065			
67		Total Distribution Plant	160,086,162	5,247,145			838,543	1,767,875		1,062,533			
68													
69		General Plant											
70	388.10	Land	44,728				0	0		0			
71	390.02	Structures & Improvements	316,621	134,459			0	0		0			
72	390.03	Improvements	64,111				0	0		0			
73	390.04	Air Conditioning Equipment	9,771				0	0		0			
74	390.04	Air Conditioning Equipment	0				0	0		0			
75	390.05	Total Energy	0				0	0		0			
76	390.09	Improvement to leased Premises	1,394,282	10,001			1,600	3,370		2,025			
77	391.00	Office Furniture & Equipment	1,861,880	1,500			240	505		304			
78	391.83	Office Machines	200,479				0	0		0			
79	392.10	Transportation Equipment	6,044,074				0	0		0			
80	392.20	Trailers	165,970				0	0		0			
81	n/a	n/a	0				0	0		0			
82	394.77	Tools & Work Equipment	3,070,937	4,000			640	1,348		810			
83	396.93	Dishers	653,915				0	0		0			
84	396.94	Backhoes	706,023				0	0		0			
85	396.95	Welders	92,413				0	0		0			
86	397.00	Communication Equip. - Phones	1,100,364				0	0		0			
87	397.20	Communication Equip. - Fixed Radios	21,697				0	0		0			
88	397.21	Communication Equip. - Mobile Radios	69,220				6,400	13,477		8,100			
89	397.22	Communication Equip. - Telemetering	114,695	6,000			960	2,022		1,215			
90	398.00	Miscellaneous Equipment	37,073				0	0		0			
91	398.00	Other Tangible Property	0				0	0		0			
92	399.84	Other Tangible Property - CPU	0				0	0		0			
93	399.85	Other Tangible Property - MF Hardware	397,278				0	0		0			
94	399.86	Other Tangible Property - PC Hardware	2,828,889	35,980			5,757	12,122		7,266			
95	399.87	Other Tang. Property - P.C. Software	306,173	10,000			1,600	3,369		2,025			
96	399.88	Other Tang. Property - Application Software	12,054,929				0	0		0			
97	399.89	Other Tang. Property - System Software	0				0	0		0			2,632,460
98	39xx1	Server Hardware	695,971				0	0		0			
99	39xx2	Server Software	228,311				0	0		0			
100	39xx3	Network Cost	332,234				0	0		0			
101	39xx4	Start Up Cost	5,696,831				0	0		0			
102	599.00	Cushion Gas	1,694,633				0	0		0			
103													
104		Total General Plant	40,402,400	107,481	19,235,840		17,197	36,213		21,765			2,632,460
105													
106		Total Gas Plant in Service	226,322,900	5,461,602	19,235,840		873,888	1,840,198		1,106,000			2,632,460

tot of col. A-D-E
 from DHD-1, p.1

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF OCTOBER 31, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 10/31/98	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	0.00	0.00	0.00	2,172,799.96
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	0.00	0.00	0.00	0.00	4,884,110.51

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF OCTOBER 31, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 10/31/98	
TRANSMISSION PLANT							
09	3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09	3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09	3660020	Structures & Improvements	32,921.36	0.00	0.00	0.00	32,921.36
09	3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09	3670000	Mains	19,301,055.85	(5,427.87)	0.00	0.00	19,295,627.98
09	3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09	3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	0.00	2,976,155.16
Total Transmission Plant		22,809,675.37	(5,427.87)	0.00	0.00	0.00	22,804,247.50
DISTRIBUTION PLANT							
09	3740010	Land Town Border	61,709.61	180.00	0.00	0.00	61,889.61
09	3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09	3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09	3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09	3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09	3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09	3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09	3760000	Mains	68,571,269.61	255,381.74	0.00	0.00	68,826,651.35
09	3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	23,759.64	0.00	0.00	1,905,320.06
09	3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	0.00	0.00	1,650,884.25
09	3800000	Services	40,476,571.75	318,970.61	0.00	0.00	40,795,542.36
09	3810000	Meters	18,009,962.39	0.00	0.00	0.00	18,009,962.39
09	3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09	3820000	Meter Installations	13,197,358.85	96,472.63	0.00	0.00	13,293,831.48
09	3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09	3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09	3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09	3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	0.00	0.00	0.00	2,931,579.79
09	3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
Total Distribution Plant		151,169,065.81	694,764.62	0.00	0.00	0.00	151,863,830.43
GENERAL PLANT							
09	3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09	3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09	3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09	3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09	3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09	3900009	Inprov. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09	3910000	General Office Equipment	1,576,086.34	0.00	0.00	0.00	1,576,086.34
09	3918300	Office Furn-Coplers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09	3920000	Transportation Equipment	6,044,073.81	0.00	0.00	0.00	6,044,073.81
09	3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09	3940077	Tools & Work Equipment	3,064,138.84	0.00	0.00	0.00	3,064,138.84
09	3969377	Ditchers	853,614.76	0.00	0.00	0.00	853,614.76
09	3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09	3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09	3970000	Communication Equipment	750,059.60	0.00	0.00	0.00	750,059.60
09	3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09	3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09	3970022	Comm. Equip. - Telemetering	114,695.01	0.00	0.00	0.00	114,695.01
09	3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09	3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09	3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	0.00	0.00	397,277.53
09	3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09	3998700	Oth Tang Prop - PC Software	185,510.98	0.00	0.00	0.00	185,510.98
09	3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09	9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
Total General Plant		18,351,444.82	0.00	0.00	0.00	0.00	18,351,444.82
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$689,336.75	\$0.00	\$0.00	\$0.00	\$198,861,948.46

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF NOVEMBER 30, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 11/30/98	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	0.00	0.00	0.00	2,172,799.96
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	0.00	0.00	0.00	0.00	4,884,110.51

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF NOVEMBER 30, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 11/30/98	
TRANSMISSION PLANT							
09	3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09	3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09	3660020	Structures & Improvements	32,921.36	0.00	0.00	0.00	32,921.36
09	3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09	3670000	Mains	19,301,055.85	(17,387.32)	0.00	0.00	19,283,668.53
09	3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09	3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	(27,864.23)	2,948,290.93
Total Transmission Plant		22,809,675.37	(17,387.32)	0.00	(27,864.23)		22,764,423.82
DISTRIBUTION PLANT							
09	3740010	Land Town Border	61,709.61	180.00	0.00	0.00	61,889.61
09	3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09	3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09	3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09	3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09	3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09	3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09	3760000	Mains	68,571,269.61	285,515.00	0.00	27,864.23	68,884,648.84
09	3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	25,499.66	0.00	0.00	1,907,060.08
09	3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	0.00	0.00	1,650,884.25
09	3800000	Services	40,476,571.75	638,509.69	0.00	0.00	41,115,081.44
09	3810000	Meters	18,009,962.39	0.00	0.00	0.00	18,009,962.39
09	3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09	3820000	Meter Installations	13,197,358.85	199,236.30	0.00	0.00	13,396,595.15
09	3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09	3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09	3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09	3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	(12,856.00)	0.00	0.00	2,918,723.79
09	3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
Total Distribution Plant		151,169,065.81	1,136,084.65	0.00	27,864.23		152,333,014.69
GENERAL PLANT							
09	3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09	3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09	3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09	3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09	3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09	3900009	Inprov. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09	3910000	General Office Equipment	1,576,086.34	0.00	0.00	0.00	1,576,086.34
09	3918300	Office Furn-Copiers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09	3920000	Transportation Equipment	6,044,073.81	0.00	0.00	0.00	6,044,073.81
09	3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09	3940077	Tools & Work Equipment	3,064,138.84	0.00	0.00	35.37	3,064,174.21
09	3969377	Ditchers	853,614.76	0.00	0.00	(35.37)	853,579.39
09	3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09	3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09	3970000	Communication Equipment	750,059.60	0.00	0.00	0.00	750,059.60
09	3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09	3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09	3970022	Comm. Equip. - Telemetering	114,695.01	0.00	0.00	0.00	114,695.01
09	3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09	3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09	3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	(7,399.61)	0.00	404,677.14
09	3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09	3998700	Oth Tang Prop - PC Software	185,510.98	7,647.03	0.00	0.00	193,158.01
09	3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09	9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
Total General Plant		18,351,444.82	7,647.03	(7,399.61)	0.00		18,366,491.46
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$1,126,344.36	(\$7,399.61)	\$0.00		\$199,306,355.68

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF DECEMBER 31, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 12/31/98	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	0.00	0.00	0.00	2,172,799.96
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	0.00	0.00	0.00	0.00	4,884,110.51

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF DECEMBER 31, 1998

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 12/31/98	
TRANSMISSION PLANT							
09	3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09	3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09	3660020	Structures & Improvements	32,921.36	(18,124.03)	0.00	0.00	14,797.33
09	3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09	3670000	Mains	19,301,055.85	(17,387.32)	0.00	0.00	19,283,668.53
09	3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09	3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	(27,864.23)	2,948,290.93
Total Transmission Plant		22,809,675.37	(35,511.35)	0.00	(27,864.23)		22,746,299.79
DISTRIBUTION PLANT							
09	3740010	Land Town Border	61,709.61	180.00	0.00	0.00	61,889.61
09	3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09	3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09	3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09	3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09	3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09	3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09	3760000	Mains	68,571,269.61	270,409.34	0.00	27,864.23	68,869,543.18
09	3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	25,499.66	0.00	0.00	1,907,060.08
09	3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	0.00	0.00	1,650,884.25
09	3800000	Services	40,476,571.75	984,501.81	0.00	0.00	41,461,073.56
09	3810000	Meters	18,009,962.39	0.00	0.00	0.00	18,009,962.39
09	3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09	3820000	Meter Installations	13,197,358.85	306,820.32	0.00	0.00	13,504,179.17
09	3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09	3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09	3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09	3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	(12,856.00)	0.00	0.00	2,918,723.79
09	3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
Total Distribution Plant		151,169,065.81	1,574,555.13	0.00	27,864.23		152,771,485.17
GENERAL PLANT							
09	3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09	3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09	3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09	3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09	3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09	3900009	Improv. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09	3910000	General Office Equipment	1,576,086.34	0.00	0.00	0.00	1,576,086.34
09	3918300	Office Furn-Coplers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09	3920000	Transportation Equipment	6,044,073.81	0.00	0.00	0.00	6,044,073.81
09	3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09	3940077	Tools & Work Equipment	3,064,138.84	0.00	0.00	35.37	3,064,174.21
09	3969377	Ditchers	853,614.76	0.00	0.00	(35.37)	853,579.39
09	3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09	3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09	3970000	Communication Equipment	750,059.60	0.00	0.00	0.00	750,059.60
09	3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09	3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09	3970022	Comm. Equip. - Telemetering	114,695.01	0.00	0.00	0.00	114,695.01
09	3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09	3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09	3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	(7,399.61)	0.00	404,677.14
09	3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09	3998700	Oth Tang Prop - PC Software	185,510.98	7,647.03	0.00	0.00	193,158.01
09	3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09	9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
Total General Plant		18,351,444.82	7,647.03	(7,399.61)	0.00		18,366,491.46
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$1,546,690.81	(\$7,399.61)	\$0.00		\$199,726,702.13

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF JANUARY 31, 1999

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 01/31/99	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	0.00	0.00	0.00	2,172,799.96
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	0.00	0.00	0.00	0.00	4,884,110.51

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF JANUARY 31, 1999

		Year to Date				Balance 01/31/99
		Balance 9/30/98	Additions	Retirements	Transfers	
TRANSMISSION PLANT						
09 3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09 3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09 3660020	Structures & Improvements	32,921.36	(18,124.03)	0.00	0.00	14,797.33
09 3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09 3670000	Mains	19,301,055.85	(17,387.32)	0.00	0.00	19,283,668.53
09 3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09 3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	(27,864.23)	2,948,290.93
	Total Transmission Plant	22,809,675.37	(35,511.35)	0.00	(27,864.23)	22,746,299.79
DISTRIBUTION PLANT						
09 3740010	Land Town Border	61,709.61	180.00	0.00	0.00	61,889.61
09 3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09 3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09 3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09 3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09 3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09 3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09 3760000	Mains	68,571,269.61	330,284.66	0.00	27,864.23	68,929,418.50
09 3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	25,499.66	0.00	0.00	1,907,060.08
09 3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	0.00	0.00	1,650,884.25
09 3800000	Services	40,476,571.75	1,247,530.55	0.00	0.00	41,724,102.30
09 3810000	Meters	18,009,962.39	0.00	0.00	0.00	18,009,962.39
09 3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09 3820000	Meter Installations	13,197,358.85	366,045.93	0.00	0.00	13,563,404.78
09 3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09 3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09 3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09 3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	(12,856.00)	0.00	0.00	2,918,723.79
09 3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
	Total Distribution Plant	151,169,065.81	1,956,684.80	0.00	27,864.23	153,153,614.84 (153,153,614.84)
GENERAL PLANT						
09 3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09 3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09 3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09 3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09 3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09 3900009	Inprov. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09 3910000	General Office Equipment	1,576,086.34	0.00	0.00	0.00	1,576,086.34
09 3918300	Office Furn-Copiers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09 3920000	Transportation Equipment	6,044,073.81	0.00	0.00	0.00	6,044,073.81
09 3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09 3940077	Tools & Work Equipment	3,064,138.84	0.00	0.00	35.37	3,064,174.21
09 3969377	Ditchers	853,614.76	0.00	0.00	(35.37)	853,579.39
09 3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09 3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09 3970000	Communication Equipment	750,059.60	0.00	0.00	0.00	750,059.60
09 3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09 3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09 3970022	Comm. Equip. - Telemetry	114,695.01	0.00	0.00	0.00	114,695.01
09 3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09 3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09 3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	(7,399.61)	0.00	404,677.14
09 3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09 3998700	Oth Tang Prop - PC Software	185,510.98	7,647.03	0.00	0.00	193,158.01
09 3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09 9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
	Total General Plant	18,351,444.82	7,647.03	(7,399.61)	0.00	18,366,491.46
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$1,928,820.48	(\$7,399.61)	\$0.00	\$200,108,831.80

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ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF FEBRUARY 28, 1999

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 02/28/99	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	23,675.63	0.00	0.00	2,196,475.59
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	23,675.63	0.00	0.00	0.00	4,907,786.14

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF FEBRUARY 28, 1999

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 02/28/99	
TRANSMISSION PLANT							
09	3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09	3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09	3660020	Structures & Improvements	32,921.36	(18,124.03)	0.00	0.00	14,797.33
09	3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09	3670000	Mains	19,301,055.85	(17,387.32)	0.00	0.00	19,283,668.53
09	3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09	3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	(27,864.23)	2,948,290.93
Total Transmission Plant		22,809,675.37	(35,511.35)	0.00	(27,864.23)		22,746,299.79
DISTRIBUTION PLANT							
09	3740010	Land Town Border	61,709.61	204.00	0.00	0.00	61,913.61
09	3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09	3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09	3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09	3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09	3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09	3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09	3760000	Mains	68,571,269.61	742,110.90	92,958.31	27,864.23	69,248,286.43
09	3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	27,007.78	0.00	0.00	1,908,568.20
09	3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	1,546.92	0.00	1,649,337.33
09	3800000	Services	40,476,571.75	1,397,411.48	71,570.10	0.00	41,802,413.13
09	3810000	Meters	18,009,962.39	0.00	292,116.15	0.00	17,717,846.24
09	3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09	3820000	Meter Installations	13,197,358.85	387,996.83	3,087.11	0.00	13,582,268.57
09	3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09	3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09	3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09	3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	22,129.99	0.00	0.00	2,953,709.78
09	3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
Total Distribution Plant		151,169,065.81	2,576,860.98	461,278.59	27,864.23		153,312,512.43
							(153,153,614.84)
							158,897.59
GENERAL PLANT							
09	3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09	3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09	3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09	3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09	3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09	3900009	Inprov. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09	3910000	General Office Equipment	1,576,086.34	0.00	1,464.75	0.00	1,574,621.59
09	3918300	Office Furn-Copiers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09	3920000	Transportation Equipment	6,044,073.81	0.00	15,217.44	0.00	6,028,856.37
09	3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09	3940077	Tools & Work Equipment	3,064,138.84	1,181.58	4,300.04	35.37	3,061,055.75
09	3969377	Ditchers	853,614.76	0.00	22,556.15	(35.37)	831,023.24
09	3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09	3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09	3970000	Communication Equipment	750,059.60	0.00	2,345.28	0.00	747,714.32
09	3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09	3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09	3970022	Comm. Equip. - Telemetering	114,695.01	0.00	0.00	0.00	114,695.01
09	3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09	3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09	3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	(7,399.61)	0.00	404,677.14
09	3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09	3998700	Oth Tang Prop - PC Software	185,510.98	7,979.58	0.00	0.00	193,490.56
09	3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09	9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
Total General Plant		18,351,444.82	9,161.16	38,484.05	0.00		18,322,121.93
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$2,574,186.42	\$499,762.64	\$0.00		\$200,247,035.49

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF MARCH 31, 1999

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 03/31/99	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
INTANGIBLE PLANT							
09	3010000	Organization	8,329.72	0.00	0.00	0.00	8,329.72
09	3020000	Franchises & Consents	119,852.69	0.00	0.00	0.00	119,852.69
Total Intangible Plant		128,182.41	0.00	0.00	0.00	0.00	128,182.41
L-P PRODUCTION PLANT							
09	3040010	Land	0.00	0.00	0.00	0.00	0.00
09	3050000	Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3110005	Compression Equipment	0.00	0.00	0.00	0.00	0.00
09	3110011	Gauges & Instruments	0.00	0.00	0.00	0.00	0.00
09	3110012	Mixing Equipment	0.00	0.00	0.00	0.00	0.00
09	3110016	Piping	0.00	0.00	0.00	0.00	0.00
09	3110022	Storage Equipment	0.00	0.00	0.00	0.00	0.00
09	3110026	Vaporizing Equipment	0.00	0.00	0.00	0.00	0.00
09	3190000	Gas Mixing Equipment	0.00	0.00	0.00	0.00	0.00
Total L-P Production Plant		0.00	0.00	0.00	0.00	0.00	0.00
NATURAL GAS PRODUCTION PLANT							
09	3250020	Producing Leaseholds	2,352.50	0.00	0.00	0.00	2,352.50
09	3250040	Rights of Ways	6,069.04	0.00	0.00	0.00	6,069.04
09	3250050	Land	0.00	0.00	0.00	0.00	0.00
09	3250060	Mineral Deeds	0.00	0.00	0.00	0.00	0.00
09	3280000	Field Meas. & Reg. Structures	0.00	0.00	0.00	0.00	0.00
09	3290000	Other Structures & Improvements	0.00	0.00	0.00	0.00	0.00
09	3300000	Gas Well Construction	0.00	0.00	0.00	0.00	0.00
09	3310000	Production Gas Wells Equipment	3,492.47	0.00	0.00	0.00	3,492.47
09	3320010	Field Lines	47,162.67	0.00	0.00	0.00	47,162.67
09	3320020	Tributary Lines	528,218.00	0.00	0.00	0.00	528,218.00
09	3330000	Prod. Field Comp. Sta. Equip.	0.00	0.00	0.00	0.00	0.00
09	3340000	Field Meas. & Reg. Sta. Equip.	198,468.81	0.00	0.00	0.00	198,468.81
09	3360000	Purification Equipment	44,369.30	0.00	0.00	0.00	44,369.30
Total Natural Gas Prod. Plant		830,132.79	0.00	0.00	0.00	0.00	830,132.79
STORAGE PLANT							
09	3500010	Land	261,126.69	0.00	0.00	0.00	261,126.69
09	3500020	Rights of Ways	4,681.58	0.00	0.00	0.00	4,681.58
09	3510020	Compressor Station Equipment	121,264.59	0.00	0.00	0.00	121,264.59
09	3510030	Meas. & Reg. Sta. Structures	23,138.38	0.00	0.00	0.00	23,138.38
09	3510040	Other Structures	144,554.11	0.00	0.00	0.00	144,554.11
09	3520001	Well Construction	2,172,799.96	23,675.63	0.00	0.00	2,196,475.59
09	3520002	Well Equipment	535,976.49	0.00	0.00	0.00	535,976.49
09	3520010	Leaseholds	178,530.09	0.00	0.00	0.00	178,530.09
09	3520011	Storage Rights	54,614.27	0.00	0.00	0.00	54,614.27
09	3530010	Field Lines	178,500.50	0.00	0.00	0.00	178,500.50
09	3530020	Tributary Lines	209,458.21	0.00	0.00	0.00	209,458.21
09	3540000	Compressor Station Equipment	470,685.43	0.00	0.00	0.00	470,685.43
09	3550000	Meas. & Reg. Equipment	288,850.55	0.00	0.00	0.00	288,850.55
09	3560000	Purification Equipment	239,929.66	0.00	0.00	0.00	239,929.66
Total Storage Plant		4,884,110.51	23,675.63	0.00	0.00	0.00	4,907,786.14

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF MARCH 31, 1999

		Year to Date					
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 03/31/99	
WESTERN KENTUCKY DISTRIBUTION DIVISION							
TRANSMISSION PLANT							
09	3650010	Land	26,951.25	0.00	0.00	0.00	26,951.25
09	3650020	Rights of Ways	403,419.34	0.00	0.00	0.00	403,419.34
09	3660020	Structures & Improvements	32,921.36	(18,124.03)	0.00	0.00	14,797.33
09	3660030	Other Structures	69,172.41	0.00	0.00	0.00	69,172.41
09	3670000	Mains	19,301,055.85	(17,387.32)	0.00	0.00	19,283,668.53
09	3680000	Compressor Station Equipment	0.00	0.00	0.00	0.00	0.00
09	3690010	Meas. & Reg. Equipment	2,976,155.16	0.00	0.00	(27,864.23)	2,948,290.93
Total Transmission Plant		22,809,675.37	(35,511.35)	0.00	(27,864.23)		22,746,299.79
DISTRIBUTION PLANT							
09	3740010	Land Town Border	61,709.61	204.00	0.00	0.00	61,913.61
09	3740030	Land Other	2,783.89	0.00	0.00	0.00	2,783.89
09	3740020	Right of Way	44,871.73	0.00	0.00	0.00	44,871.73
09	3750010	Structures & Improvements T.B.	106,375.76	0.00	0.00	0.00	106,375.76
09	3750002	Structures & Improvements Other	0.00	0.00	0.00	0.00	0.00
09	3750003	Improvements	7,517.58	0.00	0.00	0.00	7,517.58
09	3750020	Land Rights	46,591.01	0.00	0.00	0.00	46,591.01
09	3760000	Mains	68,571,269.61	794,573.50	96,202.52	27,864.23	69,297,504.82
09	3780010	Meas. & Reg. Sta. Equipment General	1,881,560.42	27,007.78	0.00	0.00	1,908,568.20
09	3790030	Meas. & Reg. Sta. Equipment T.B.	1,650,884.25	0.00	1,546.92	0.00	1,649,337.33
09	3800000	Services	40,476,571.75	1,543,506.66	139,581.78	0.00	41,880,496.63
09	3810000	Meters	18,009,962.39	0.00	292,116.15	0.00	17,717,846.24
09	3810020	V & P Gauges	109,523.93	0.00	0.00	0.00	109,523.93
09	3820000	Meter Installations	13,197,358.85	387,996.83	4,512.78	0.00	13,580,842.90
09	3830000	Regulators Service	3,428,991.68	0.00	0.00	0.00	3,428,991.68
09	3830020	Regulators Relief	481,544.54	0.00	0.00	0.00	481,544.54
09	3840000	House Reg. Installations	154,276.36	0.00	0.00	0.00	154,276.36
09	3850010	Ind. Meas. & Reg. Sta. Equipment	2,931,579.79	22,129.99	0.00	0.00	2,953,709.78
09	3860000	Other Prop. On Customer Prem.	5,692.66	0.00	0.00	0.00	5,692.66
Total Distribution Plant		151,169,065.81	2,775,418.76	533,960.15	27,864.23		153,438,388.65
GENERAL PLANT							
09	3890010	Land	44,727.62	0.00	0.00	0.00	44,727.62
09	3900002	Structures & Improvements	182,161.56	0.00	0.00	0.00	182,161.56
09	3900003	Improvements	64,110.56	0.00	0.00	0.00	64,110.56
09	3900004	Air Conditioning Equipment	9,771.49	0.00	0.00	0.00	9,771.49
09	3900005	Total Energy	0.00	0.00	0.00	0.00	0.00
09	3900009	Inprov. to Leased Premises	1,377,285.70	0.00	0.00	0.00	1,377,285.70
09	3910000	General Office Equipment	1,576,086.34	0.00	1,464.75	0.00	1,574,621.59
09	3918300	Office Furn-Copiers & Typewriters	200,478.91	0.00	0.00	0.00	200,478.91
09	3920000	Transportation Equipment	6,044,073.81	0.00	15,217.44	0.00	6,028,856.37
09	3920020	Trailers	165,969.90	0.00	0.00	0.00	165,969.90
09	3940077	Tools & Work Equipment	3,064,138.84	1,181.58	4,300.04	35.37	3,061,055.75
09	3969377	Ditchers	853,614.76	0.00	22,556.15	(35.37)	831,023.24
09	3969477	Backhoes	706,022.84	0.00	0.00	0.00	706,022.84
09	3969577	Welders	92,412.75	0.00	0.00	0.00	92,412.75
09	3970000	Communication Equipment	750,059.60	0.00	2,345.28	0.00	747,714.32
09	3970020	Comm. Equip. - Fixed Radios	21,697.23	0.00	0.00	0.00	21,697.23
09	3970021	Comm. Equip. - Mobile Radios	58,023.11	0.00	0.00	0.00	58,023.11
09	3970022	Comm. Equip. - Telemetering	114,695.01	0.00	0.00	0.00	114,695.01
09	3980000	Miscellaneous Equipment	37,073.03	0.00	0.00	0.00	37,073.03
09	3990000	Oth Tang Prop	0.00	0.00	0.00	0.00	0.00
09	3998500	Oth Tang Prop - MF Hardware	397,277.53	0.00	(7,399.61)	0.00	404,677.14
09	3998600	Oth Tang Prop - PC Hardware	504,426.33	0.00	0.00	0.00	504,426.33
09	3998700	Oth Tang Prop - PC Software	185,510.98	7,979.58	0.00	0.00	193,490.56
09	3998800	Oth Tang Prop - Application software	206,993.96	0.00	0.00	0.00	206,993.96
09	9999117	Cushion Gas	1,694,832.96	0.00	0.00	0.00	1,694,832.96
Total General Plant		18,351,444.82	9,161.16	38,484.05	0.00		18,322,121.93
TOTAL WESTERN KENTUCKY DISTRIBUTION DIV.		\$198,172,611.71	\$2,772,744.20	\$572,444.20	\$0.00		\$200,372,911.71

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ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF OCTOBER 31, 1998

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 10/31/98
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010	Land	0.00	0.00	0.00	0.00
02	3900002	Structures - Brick	0.00	0.00	0.00	0.00
02	3900003	Improvements	0.00	0.00	0.00	0.00
02	3900004	Air Conditioning Equipment	0.00	0.00	0.00	0.00
02	3900009	Improv. to Leased Premises	6,030,709.19	0.00	0.00	6,030,709.19
02	3910000	Office Furn. & Equipment	3,573,799.65	0.00	0.00	3,573,799.65
02	3918300	Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	1,132,451.04
02	3920000	Transportation Equipment	55,387.90	0.00	0.00	55,387.90
02	3930000	Stores Equipment	6,063.14	0.00	0.00	6,063.14
02	3940077	Tools & Work Equipment	33,041.97	0.00	0.00	33,041.97
02	3970000	Comm. Equipment Telephones	805,561.16	0.00	0.00	805,561.16
02	3980000	Miscellaneous Equipment	647,851.53	0.00	0.00	647,851.53
02	3990000	Oth Tang Prop	61,661.77	0.00	0.00	61,661.77
02	3998400	Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	1,095,465.10
02	3998500	Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	1,171,886.44
02	3998600	Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	3,719,347.61
02	3998700	Oth Tang Prop - PC Software	990,547.27	0.00	0.00	990,547.27
02	3998800	Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	17,871,655.74
02	3998900	Oth Tang Prop - System software	2,801,393.72	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	0.00	39,996,823.23
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	\$0.00	\$39,996,823.23

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ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF NOVEMBER 30, 1998

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 11/30/98
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010	Land	0.00	0.00	0.00	0.00
02	3900002	Structures - Brick	0.00	0.00	0.00	0.00
02	3900003	Improvements	0.00	0.00	0.00	0.00
02	3900004	Air Conditioning Equipment	0.00	0.00	0.00	0.00
02	3900009	Improv. to Leased Premises	6,030,709.19	0.00	0.00	6,030,709.19
02	3910000	Office Furn. & Equipment	3,573,799.65	0.00	0.00	3,573,799.65
02	3918300	Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	1,132,451.04
02	3920000	Transportation Equipment	55,387.90	0.00	0.00	55,387.90
02	3930000	Stores Equipment	6,063.14	0.00	0.00	6,063.14
02	3940077	Tools & Work Equipment	33,041.97	0.00	0.00	33,041.97
02	3970000	Comm. Equipment Telephones	805,561.16	0.00	0.00	805,561.16
02	3980000	Miscellaneous Equipment	647,851.53	0.00	0.00	647,851.53
02	3990000	Oth Tang Prop	61,661.77	0.00	0.00	61,661.77
02	3998400	Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	1,095,465.10
02	3998500	Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	1,171,886.44
02	3998600	Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	3,719,347.61
02	3998700	Oth Tang Prop - PC Software	990,547.27	0.00	0.00	990,547.27
02	3998800	Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	17,871,655.74
02	3998900	Oth Tang Prop - System software	2,801,393.72	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	0.00	39,996,823.23
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	\$0.00	\$39,996,823.23

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ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF DECEMBER 31, 1998

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 12/31/98
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010	Land	0.00	0.00	0.00	0.00
02	3900002	Structures - Brick	0.00	0.00	0.00	0.00
02	3900003	Improvements	0.00	0.00	0.00	0.00
02	3900004	Air Conditioning Equipment	0.00	0.00	0.00	0.00
02	3900009	Improv. to Leased Premises	6,030,709.19	0.00	0.00	6,030,709.19
02	3910000	Office Furn. & Equipment	3,573,799.65	0.00	0.00	3,573,799.65
02	3918300	Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	1,132,451.04
02	3920000	Transportation Equipment	55,387.90	0.00	0.00	55,387.90
02	3930000	Stores Equipment	6,063.14	0.00	0.00	6,063.14
02	3940077	Tools & Work Equipment	33,041.97	0.00	0.00	33,041.97
02	3970000	Comm. Equipment Telephones	805,561.16	0.00	0.00	805,561.16
02	3980000	Miscellaneous Equipment	647,851.53	0.00	0.00	647,851.53
02	3990000	Oth Tang Prop	61,661.77	0.00	0.00	61,661.77
02	3998400	Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	1,095,465.10
02	3998500	Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	1,171,886.44
02	3998600	Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	3,719,347.61
02	3998700	Oth Tang Prop - PC Software	990,547.27	0.00	0.00	990,547.27
02	3998800	Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	17,871,655.74
02	3998900	Oth Tang Prop - System software	2,801,393.72	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	0.00	39,996,823.23
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	\$0.00	\$39,996,823.23

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF JANUARY 31, 1999

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 01/31/99
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010	Land	0.00	0.00	0.00	0.00
02	3900002	Structures - Brick	0.00	0.00	0.00	0.00
02	3900003	Improvements	0.00	0.00	0.00	0.00
02	3900004	Air Conditioning Equipment	0.00	0.00	0.00	0.00
02	3900009	Improv. to Leased Premises	6,030,709.19	0.00	0.00	6,030,709.19
02	3910000	Office Furn. & Equipment	3,573,799.65	0.00	0.00	3,573,799.65
02	3918300	Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	1,132,451.04
02	3920000	Transportation Equipment	55,387.90	0.00	0.00	55,387.90
02	3930000	Stores Equipment	6,063.14	0.00	0.00	6,063.14
02	3940077	Tools & Work Equipment	33,041.97	0.00	0.00	33,041.97
02	3970000	Comm. Equipment Telephones	805,561.16	0.00	0.00	805,561.16
02	3980000	Miscellaneous Equipment	647,851.53	0.00	0.00	647,851.53
02	3990000	Oth Tang Prop	61,661.77	0.00	0.00	61,661.77
02	3998400	Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	1,095,465.10
02	3998500	Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	1,171,886.44
02	3998600	Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	3,719,347.61
02	3998700	Oth Tang Prop - PC Software	990,547.27	0.00	0.00	990,547.27
02	3998800	Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	17,871,655.74
02	3998900	Oth Tang Prop - System software	2,801,393.72	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	0.00	39,996,823.23
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	\$0.00	\$39,996,823.23

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ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF FEBRUARY 28, 1999

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 02/28/99
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010	Land	0.00	0.00	0.00	0.00
02	3900002	Structures - Brick	0.00	0.00	0.00	0.00
02	3900003	Improvements	0.00	0.00	0.00	0.00
02	3900004	Air Conditioning Equipment	0.00	0.00	0.00	0.00
02	3900009	Improv. to Leased Premises	6,030,709.19	0.00	0.00	6,030,709.19
02	3910000	Office Furn. & Equipment	3,573,799.65	0.00	0.00	3,573,799.65
02	3918300	Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	1,132,451.04
02	3920000	Transportation Equipment	55,387.90	0.00	0.00	55,387.90
02	3930000	Stores Equipment	6,063.14	0.00	0.00	6,063.14
02	3940077	Tools & Work Equipment	33,041.97	0.00	0.00	33,041.97
02	3970000	Comm. Equipment Telephones	805,561.16	0.00	0.00	805,561.16
02	3980000	Miscellaneous Equipment	647,851.53	0.00	0.00	647,851.53
02	3990000	Oth Tang Prop	61,661.77	0.00	0.00	61,661.77
02	3998400	Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	1,095,465.10
02	3998500	Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	1,171,886.44
02	3998600	Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	3,719,347.61
02	3998700	Oth Tang Prop - PC Software	990,547.27	0.00	0.00	990,547.27
02	3998800	Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	17,871,655.74
02	3998900	Oth Tang Prop - System software	2,801,393.72	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	0.00	39,996,823.23
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	\$0.00	\$39,996,823.23

ATMOS ENERGY CORPORATION
PROPERTY, PLANT AND EQUIPMENT
AS OF MARCH 31, 1999

		Year to Date				
		Balance 9/30/98	Additions	Retirements	Transfers	Balance 03/31/99
ATMOS GENERAL OFFICE						
GENERAL PLANT						
02	3890010 Land	0.00	0.00	0.00	0.00	0.00
02	3900002 Structures - Brick	0.00	0.00	0.00	0.00	0.00
02	3900003 Improvements	0.00	0.00	0.00	0.00	0.00
02	3900004 Air Conditioning Equipment	0.00	0.00	0.00	0.00	0.00
02	3900009 Improv. to Leased Premises	6,030,709.19	0.00	0.00	0.00	6,030,709.19
02	3910000 Office Furn. & Equipment	3,573,799.65	0.00	0.00	(514.68)	3,573,284.97
02	3918300 Office Furn. - Copiers & Typewriters	1,132,451.04	0.00	0.00	0.00	1,132,451.04
02	3920000 Transportation Equipment	55,387.90	0.00	0.00	0.00	55,387.90
02	3930000 Stores Equipment	6,063.14	0.00	0.00	0.00	6,063.14
02	3940077 Tools & Work Equipment	33,041.97	0.00	0.00	0.00	33,041.97
02	3970000 Comm. Equipment Telephones	805,561.16	0.00	0.00	0.00	805,561.16
02	3980000 Miscellaneous Equipment	647,851.53	0.00	0.00	0.00	647,851.53
02	3990000 Oth Tang Prop	61,661.77	0.00	0.00	0.00	61,661.77
02	3998400 Oth Tang Prop - CPU	1,095,465.10	0.00	0.00	0.00	1,095,465.10
02	3998500 Oth Tang Prop - MF Hardware	1,171,886.44	0.00	0.00	0.00	1,171,886.44
02	3998600 Oth Tang Prop - PC Hardware	3,719,347.61	0.00	0.00	0.00	3,719,347.61
02	3998700 Oth Tang Prop - PC Software	990,547.27	0.00	0.00	0.00	990,547.27
02	3998800 Oth Tang Prop - Application software	17,871,655.74	0.00	0.00	0.00	17,871,655.74
02	3998900 Oth Tang Prop - System software	2,801,393.72	0.00	0.00	0.00	2,801,393.72
Total General Plant		39,996,823.23	0.00	0.00	(514.68)	39,996,308.55
TOTAL ATMOS GENERAL OFFICE DIV.		\$39,996,823.23	\$0.00	\$0.00	(\$514.68)	\$39,996,308.55

**WKG RETIREMENTS
FOR THE PERIOD OCT 1998 - MAR 1999**

BU Div	Loc	Approp	Description	FERC	Amount
40 09	221	918144	530-EAST LOCUST MAIN RETIREMENT	37601	166.89
40 09	311	918274	311 - NORTHVIEW ST. MAIN RELOCATION	37601	2,505.01
40 09	500	432	2" STEEL MAIN RETIRE	37601	7.55
40 09	500	918163	WEST PARRISH & FREDERICA STREET	37601	2,297.55
40 09	500	918424	CARTER RD. MIDDLEGROUND TO PARRISH	37601	18,710.54
40 09	505	918166	OLD U.S.60 HARDINSBURG 2" STL. REPL.	37601	6,778.74
40 09	515	416	1" STEEL MAIN RETIRE	37601	22.00
40 09	515	432	2" STEEL MAIN RETIRE	37601	623.42
40 09	515	438	4" STEEL MAIN RETIRE	37601	784.32
40 09	515	918551	515 - S. SEMINARY ST. RELOCATION	37601	370.29
40 09	519	918541	519 - WALNUT ST. RELOCATION	37601	278.14
40 09	530	918563	546-LEAK REPAIR CRAYNE,	37601	1,019.47
40 09	533	918492	EDDYVILLE TRANS. RELOCATION	37601	512.73
40 09	550	918489	311 - MORGAN/CORNELL RELOCATION III	37601	248.91
40 09	555	918057	321 - SOUTH STREET MAIN RETIREMENT	37601	2,140.59
40 09	560	432	2" STEEL MAIN RETIRE	37601	1,428.13
40 09	560	436	3" STEEL MAIN RETIRE	37601	76.50
40 09	560	918467	560 - STONEHENGE 8" RELOCATION	37601	415.94
40 09	565	918587	565- SOUTH HIGH STREET REPLACEMENT	37601	2,112.80
40 09	580	432	2" STEEL MAIN RETIRE	37601	941.79
40 09	580	438	4" STEEL MAIN RETIRE	37601	481.60
40 09	580	918130	611 BONTA TRAILER COURT RETIREMENT	37601	71.99
40 09	590	918559	HARRODSBURG TOWN BORDER RELOCATION	37601	1,073.15
40 09	595	918279	651 ISAAC SHELBY DRIVE RELOCATION	37601	144.42
40 09	622	916962	622 WALNUT STREET REPLACEMENT	37601	2,448.30
40 09	500	632	2" PLASTIC MAIN RETI	37602	135.35
40 09	500	638	4" PLASTIC MAIN RETI	37602	168.60
40 09	515	632	2" PLASTIC MAIN RETI	37602	80.95
40 09	515	918336	515-HWY-41 HWY RELOCATION	37602	40,836.20
40 09	549	918112	655 EVERGREEN RELOCATION	37602	7,045.41
40 09	550	632	2" PLASTIC MAIN RETI	37602	24.55
40 09	550	918327	COLDSPRING ROAD RELOCATION	37602	669.58
40 09	580	632	2" PLASTIC MAIN RETI	37602	81.01
40 09	588	918427	622 INDUSTRY DR RELOCATION	37602	1,500.10
TOTAL MAINS					96,202.52
40 09	500	918228	ODORIZER REPLACEMENT	37905	189.82
40 09	515	918479	201-REPLACE WICK TYPE ODORANT TANKS	37905	473.52
40 09	515	918481	201-REPLACE WICK TYPE ODORANT TANKS	37905	883.58
TOTAL M & R STATION EQUIPMENT					1,546.92
40 09	500	212	SERVICE RETIRE	38000	44,274.42
40 09	550	212	SERVICE RETIRE	38000	47,742.99
40 09	580	212	SERVICE RETIRE	38000	47,564.37
TOTAL SERVICES					139,581.78
40 09	500	917926	WKG-METERS FOR 1998(CLASS 1-9)	38100	40,586.30
40 09	500	917928	WKG-METERS FOR 1998(CLASS 1-9)	38100	7,539.57
40 09	500	917956	HITACHI AUTOMOTIVE HARRODSBURG	38100	152.54
40 09	500	917958	EFM FOR TRIAD INDUSTRIES B.G.	38100	48.83

**WKG RETIREMENTS
FOR THE PERIOD OCT 1998 - MAR 1999**

BU Div	Loc	Approp	Description	FERC	Amount
40 09	500	917974	98EFM-FIELD PACKING (OWB.)	38100	316.29
40 09	500	917977	98EFM-PRO-WASH (FRANKLIN)	38100	75.00
40 09	500	918010	1998EFM-SKF BEARING (GLASGOW)	38100	473.68
40 09	500	918143	WKG-METERS FOR 1998(CLASS 1-9)	38100	238,367.95
40 09	500	918218	1998 EFM ELKTON DIE CASTING	38100	1,097.54
40 09	500	918265	1998 EFM-ROGERS GROUP(HOPKINSVILLE)	38100	947.35
40 09	500	918417	EFM EQUIPMENT FOR G.E.-OBORO	38100	316.29
40 09	500	918419	EFM EQUIPMENT FOR DANA OBORO	38100	473.67
40 09	500	918421	EFM EQUIPMENT FOR WHITE HYDR.HOPK.	38100	1,095.44
40 09	500	918447	1998-EFM FOR HOPK. COATING	38100	625.70
			TOTAL METERS		<u><u>292,116.15</u></u>
40 09	515	200	MTR-REG INST.RETIRE	38200	530.29
40 09	550	200	MTR-REG INST.RETIRE	38200	704.94
40 09	580	200	MTR-REG INST.RETIRE	38200	3,277.55
			TOTAL METER INSTALLATIONS		<u><u>4,512.78</u></u>
40 09	592	918299	592 COPIER RETIREMENT	39100	1,464.75
			TOTAL GENERAL OFFICE EQUIPMENT		<u><u>1,464.75</u></u>
40 09	537	918743	RETIRE VEHICLE 5246 (1990 Chev 1/2 ton Pickup)	39200	15,217.44
			TOTAL TRANSPORTATION EQUIPMENT		<u><u>15,506.15</u></u>
40 09	500	918284	TOOLS - OTHER EQUIPMENT_OWENSBORO	39400	743.49
40 09	515	918157	201-WMSON MACHINE REPLACEMENT	39400	434.93
40 09	515	918475	201-M-SCOPE-MAD.-SERVICE	39400	810.85
40 09	537	918238	537-BACKFILL TAMPER	39400	200.00
40 09	537	918240	537-ROCKDRILL	39400	335.62
40 09	546	918151	293-WEED TRIMMER-WILLIS	39400	551.25
40 09	550	918180	OTHER EQUIP - PIPE LOCATORS- PADUCAH	39400	387.45
40 09	580	918174	611 COMBUSTIBLE GAS/C.O. DETECTOR	39400	96.86
40 09	592	918508	641-REPLACE OXYGEN DEPLETION METER	39400	739.59
			TOTAL TOOLS & WORK EQUIPMENT		<u><u>4,300.04</u></u>
40 09	311	917279	GROUND BED REPLACEMENT - PADUCAH	39603	22,556.15
			TOTAL DITCHERS		<u><u>22,556.15</u></u>
40 09	560	918170	560 - BASE UNIT - BOWLING GREEN	39700	2,345.28
			TOTAL COMMUNICATION EQUIPMENT		<u><u>2,345.28</u></u>
40 09	565	916257	MAINFRAME PRINTER - FRANKLIN OFFICE	39905	(7,399.61)
			TOTAL MAINFRAME HARDWARE		<u><u>(7,399.61)</u></u>
			TOTAL RETIREMENTS DIV 09 WKG		<u><u>572,732.91</u></u>

**WKG TRANSFERS
OCTOBER 1998 - MARCH 1999**

Amount	Approp	Description	Date
(\$27,864.23)	916575	1996 Supplement for AFE 209923-001 Measuring & Regul Station - System Imp (T.B. #4) <i>Reclass out of Meas & Reg Station Equipment to Mains</i>	Nov-98
\$27,864.23	916575	1996 Supplement for AFE 209923-001 Measuring & Regul Station - System Imp (T.B. #4) <i>Reclass to Mains from Meas & Reg Station Equipment</i>	Nov-98
\$35.37	917269	Replace #5140 Trencher <i>Reclass to Tools & Work Equipment from Ditchers</i>	Nov-98
(\$35.37)	917269	Replace #5140 Trencher <i>Reclass from Ditchers to Tools & Work Equipment</i>	Nov-98
<u>\$0.00</u>		Total	

SHARED SERVICES DIV 02 TRANSFERS

(\$278.69)	215390	Fire Proof File Cabinet	Feb-99 Correction of investment amt.
(\$119.93)	215402	Hardware/Software/Furniture	Feb-99 Correction of investment amt.
(\$116.06)	215365	New Std PC & 1 Std Chair	Feb-99 Correction of investment amt.
<u>(\$514.68)</u>		Total Office Furniture & Equipment	

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 35 c
Witness: David H. Doggette

Data Request:

Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-2.2

- c. For the forecasted period, explain why Western assumed there would be no retirements. Include in the explanation a discussion of why such an assumption is reasonable.

Response:

For budget administration, Western's budgeted additions are projected as a net amount less retirements. Western's retirements mostly occur as part of a maintenance project. Since pipe is usually abandoned in place it is rare to have a net salvage credit. The costs associated with the abandonment are shown on DHD-1, line 41, pages 1-6. Western does not budget for plant retirements since they are not known at the time of budget preparation.



80000 SERIES
10% P.C.W.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 36 a & b
Witness: Rebecca M. Buchanan

Data Request:

36. Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-2.3, for both the base and forecasted periods.

a. Identify the business unit of Atmos referred to in the schedule as "Division 02 General Office."

b. Indicate whether the assignment of the Division 02 General Office plant is the result of a general allocation of plant by Atmos or whether Western contracted for these assets.

Response:

36a.) Division 02 General Office is not a separate business unit. It is the part of Atmos that performs the Shared Service General Office functions on behalf of Western and the other Atmos business units. A list of shared services functions is found in FR 10(9)(u) of the filing, Volume 9, tab 2.

36b.) In relation to Schedule B-2.3, pages 4 and 8, the Division 02 General Office plant is allocated to Western based on the residual factor of 16.657%, and carried forward to Schedule B-2.2. This is set out in the footnotes on pages 3 and 6 of Schedule B-2.2. Western and the other business units do not contract for Shared Services General Office plant.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 37
Witness: Donald P. Burman

Data Request:

Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-3, for both the base and forecasted periods. For each of the plant accounts listed below, provide a detailed explanation as to why the accumulated depreciation exceeds the plant investment. Also explain why accumulated depreciation in excess of plant investment should be included in the calculation of Western's rate base.

- a. Account No. 331.00 – Production Gas Wells Equipment.
- b. Account No. 332.10 – Field Lines.
- c. Account No. 332.20 – Tributary Lines
- d. Account No. 334.00 – Field Meas. & Reg. Station Equipment.
- e. Account No. 351.20 – Compression Station Equipment
- f. Account No. 366.30 – Other Structures (Transmission Plant).
- g. Account No. 375.10 – Meas. & Reg. Station Equipment General.
- h. Account No. 399.00 – Other Tangible Property (base period only).
- i. Account No. 399.89 – Other Tangible Property – System Software (forecasted period only).

Response:

Western does not maintain accumulated depreciation accounts for each individual 300 asset account, but rather maintains the accumulated depreciation accounts for classes of assets, i.e. transmission, distribution, etc. The accumulated depreciation accounts referred to above were interpolated by the Company. Unfortunately, in doing so, certain errors were made in the allocation of the amounts. A revised Schedule B-3 has been prepared, allocating the accumulated depreciation accounts to the various 300 asset accounts, as of September 30, 1998.

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Accumulated Depreciation & Amortization
13 Month Avg. - Base Period ended September 30, 1999

Data: _X_ Base Period ___ Forecasted Period
Type of Filing: ___ Original ___ Updated _X_ Revised
Workpaper Reference No(s): Sched. B-3.1 & wp B-3

FR 10(10)(b)3
Schedule B-3
Page 1 of 6
Witness:

Line No.	Acct. No.	Account Titles	Base Period		Reserve Balances		
			Total Company Investment	Total Company	Jurisdictional Percent	Jurisdictional Total	Adjusted Jurisdiction
1		<u>Intangible Plant</u>			<u>100%</u>		
2	301.00	Organization	8,330	0		0	0
3	302.00	Franchises & Consents	119,853	119,853		119,853	119,853
4							
5		Total Intangible Plant	128,182	119,853		119,853	0 119,853
6							
7		<u>Natural Gas Production Plant</u>					
8	325.20	Producing Leaseholds	2,353	0		0	0
9	325.40	Rights of Ways	6,069	5,744		5,744	5,744
10	331.00	Production Gas Wells Equipment	3,492	3,331		3,331	3,331
11	332.10	Field Lines	47,163	44,969		44,969	44,969
12	332.20	Tributary Lines	528,218	503,644		503,644	503,644
13	334.00	Field Meas. & Reg. Sta. Equip	198,469	189,289		189,289	189,289
14	336.00	Purification Equipment	44,369	42,133		42,133	42,133
15							
16		Total Natural Gas Production Plant	830,133	789,110		789,110	0 789,110
17							
18		<u>Storage Plant</u>					0
19	350.10	Land	261,127	0		0	0
20	350.20	Rights of Way	4,682	3,524		3,524	3,524
21	351.20	Compression Station Equipment	121,402	92,856		92,856	92,856
22	351.30	Meas. & Reg. Sta. Structures	23,138	17,718		17,718	17,718
23	351.40	Other Structures	144,554	110,688		110,688	110,688
24	352.01	Well Construction	2,180,995	1,675,569		1,675,569	1,675,569
25	352.20	Well Equipment	547,827	413,450		413,450	413,450
26	352.10	Leaseholds	178,530	136,738		136,738	136,738
27	352.11	Storage Rights	54,614	41,830		41,830	41,830
28	353.10	Field Lines	190,173	137,146		137,146	137,146
29	353.20	Tributary Lines	212,186	160,825		160,825	160,825
30	354.00	Compressor Station Equipment	470,685	362,087		362,087	362,087
31	355.00	Meas & Reg. Equipment	288,851	222,097		222,097	222,097
32	356.00	Purification Equipment	239,930	184,301		184,301	184,301
33							
34			4,918,694	3,558,829		3,558,829	0 3,558,829

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Accumulated Depreciation & Amortization
13 Month Avg. - Base Period ended September 30, 1999

FR 10(10)(b)3
Schedule B-3
Page 2 of 6
Witness:

Data: Base Period Forecasted Period
Type of Filing: Original Updated Revised
Workpaper Reference No(s): Sched. B-3.1 & wp B-3

Line No.	Acct. No.	Account Title	Base Period		Reserve Balances		Adjusted Jurisdictional
			Total Company Investment (D)	Total Company (E)	Jurisdictional Percent (F)	Jurisdictional Total (G)		Adjustments (H)
<u>Transmission Plant</u>							
1	365.10	Land	26,951	0		0	0
2	365.20	Rights of Way	403,419	261,725		261,725	261,725
3	366.20	Structures & Improvements	23,859	21,496		21,496	21,496
4	366.30	Other Structures	69,172	45,246		45,246	45,246
5	367.00	Mains	19,310,530	12,670,085		12,670,085	12,670,085
6	369.10	Meas. & Reg. Equipment	2,962,806	1,956,457		1,956,457	1,956,457
7							
8		Total Production Plant - LPG	22,796,738	14,955,009		14,955,009	0 14,955,009
9							
<u>Distribution Plant</u>							
11	374.10	Land Town Border	61,836	0		0	0
12	374.30	Land Other	2,784	0		0	0
13	374.20	Right of Way	44,872	19,415		19,415	19,415
14	375.10	Structures & Improvements T.B.	106,376	46,541		46,541	46,541
15	375.02	Structures & Improvements Other	0	0		0	0
16	375.03	Improvements	7,518	3,339		3,339	3,339
17	375.20	Land Rights	46,591	20,694		20,694	20,694
18	376.00	Mains	69,803,621	30,525,555		30,525,555	30,525,555
19	375.10	Meas. & Reg. Sta. Equipment General	1,967,476	839,459		839,459	839,459
20	379.30	Meas & Reg. Sta. Equipment T.b.	1,691,528	735,392		735,392	735,392
21	380.00	Services	42,077,687	17,887,837		17,887,837	17,887,837
22	381.00	meters	18,132,215	7,807,827		7,807,827	7,807,827
23	381.02	V & P Guagues	109,524	48,793		48,793	48,793
24	382.00	Meter Installaitons	13,621,909	5,865,972		5,865,972	5,865,972
25	383.00	Regulators Service	3,477,781	1,527,007		1,527,007	1,527,007
26	383.02	Regulators Relief	481,545	214,385		214,385	214,385
27	384.00	House Reg. Installations	160,998	71,171		71,171	71,171
28	385.01	Ind. Meas. & Reg. Sta. Equipment	2,970,314	1,307,712		1,307,712	1,307,712
29							
30			154,764,573	66,921,098		66,921,098	0 66,921,098

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Accumulated Depreciation & Amortization
13 Month Avg. - Base Period ended September 30, 1999

FR 10(10)(b)3
Schedule B-3
Page 3 of 6
Witness:

Data: Base Period Forecasted Period
Type of Filing: Original Updated Revised
Workpaper Reference No(s): Sched. B-3.1 & wp B-3

Line No.	Acct. No.	Account Title	Base Period		Reserve Balances		Adjusted Jurisdiction
			Total Company Investment (D)	Total Company (E)	Jurisdictional Percent (F)	Jurisdictional Total (G)		Adjustments (H)
<u>General Plant **</u>							
1	389.10	Land	44,728	0		0	0
2	390.02	Structures & Improvements	244,220	92,671		92,671	92,671
3	390.03	Improvements	64,111	32,958		32,958	32,958
4	390.04	Air Conditioning Equipment	9,771	5,039		5,039	5,039
5	390.05	Total Energy	0	0		0	0
6	390.09	Improvement to leased Premises	2,389,182	1,008,493		1,008,493	1,008,493
7	391.00	General Office Equipment	2,296,800	1,063,548		1,063,548	1,063,548
8	391.82	General Office Equipment	15,691	12,847		12,847	12,847
9	391.83	Office Furn - Copiers & Typewriters	389,359	262,804		262,804	262,804
10	392.00	Transportation Equipment	6,048,032	3,241,760		3,241,760	3,241,760
11	382.02	Trailers	165,970	89,107		89,107	89,107
12	392.00	n/a	0	0		0	0
13	394.77	Tools & Work Equipment	3,071,424	1,593,002		1,593,002	1,593,002
14	396.93	Ditchers	845,786	426,505		426,505	426,505
15	396.94	Backhoes	706,023	361,976		361,976	361,976
16	396.95	Welders	92,413	47,403		47,403	47,403
17	397.00	Communication Equipment - Phones	1,032,385	509,103		509,103	509,103
18	397.20	Communication Equip. - Fixed Radios	21,697	11,529		11,529	11,529
19	397.21	Communication Equipment - Mobile Radios	60,768	30,971		30,971	30,971
20	397.22	Communication Equip. - Telemetering	114,695	60,485		60,485	60,485
21	398.00	Miscellaneous Equipment	145,042	49,584		49,584	49,584
22	399.00	Other Tangible Property	10,271	62,799		62,799	62,799
23	399.84	Other Tangible Property - CPU	182,472	128,503		128,503	128,503
24	399.85	Other Tangible Property - MF Hardware	596,748	266,176		266,176	266,176
25	399.86	Other Tangible Property - PC Hardware	2,194,113	810,384		810,384	810,384
26	399.87	Other Tang. Property - P.C. Software	410,794	244,532		244,532	244,532
27	399.88	Other Tang. Property - Application Software	9,044,627	1,868,224		1,868,224	1,868,224
28	399.89	Other Tang. Property - System Software	466,628	404,490		404,490	404,490
29	39x.xx1	Server Hardware	321,217	12,358		12,358	12,358
30	39x.xx2	Server Software	105,374	4,054		4,054	4,054
31	39x.xx3	Network Cost	153,339	5,899		5,899	5,899
32	39x.xx4	Start Up Cost	2,629,307	58,967		58,967	58,967
33	999.00	Cushion Gas	1,694,833	0		0	0
34							
35		Total General Plant	35,567,821	12,766,173		12,766,173	0 12,766,173
36							
37		Total Plant	219,006,142	99,110,071		99,110,071	0 99,110,071

** All General Plant amounts include Western Kentucky Gas general plant 100%, plus an allocation of General Office general plant at 16.657% KY residual factor.

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Accumulated Depreciation & Amortization
13 Month Avg. - Forecasted Period ended December 31, 2000

Data: ___ Base Period _X_ Forecasted Period
Type of Filing: ___ Original ___ Updated _X_ Revised
Workpaper Reference No(s): Sched. B-3.1 & wp B-3

FR 10(10)(b)3
Schedule B-3
Page 4 of 6
Witness:

Line No. (A)	Acct. No. (B)	Account Titles (C)	Forecasted	Reserve Balances			Adjusted Jurisdiction (I)
			Total Company Investment (D)	Total Company (E)	Jurisd. Percent (F)	Jurisdictional Total (G)		Adjustments (H)
1		<u>Intangible Plant</u>			<u>100%</u>		
2	301.00	Organization	8,330	0		0	0
3	302.00	Franchises & Consents	119,853	119,853		119,853	119,853
4							
5		Total Intangible Plant	128,182	119,853		119,853	0 119,853
6							
7		<u>Natural Gas Production Plant</u>					
8	325.20	Producing Leaseholds	2,353	0		0	0
9	325.40	Rights of Ways	6,069	5,744		5,744	5,744
10	331.00	Production Gas Wells Equipment	3,492	3,372		3,372	3,372
11	332.10	Field Lines	47,163	45,484		45,484	45,484
12	332.20	Tributary Lines	528,218	509,413		509,413	509,413
13	334.00	Field Meas. & Reg. Sta. Equip	198,469	191,651		191,651	191,651
14	336.00	Purification Equipment	44,369	41,991		41,991	41,991
15							
16		Total Natural Gas Production Plant	830,133	797,655		797,655	0 797,655
17							
18		<u>Storage Plant</u>					0
19	350.10	Land	261,127	0		0	0
20	350.20	Rights of Way	4,682	3,577		3,577	3,577
21	351.20	Compression Station Equipment	121,774	96,212		96,212	96,212
22	351.30	Meas. & Reg. Sta. Structures	23,138	18,356		18,356	18,356
23	351.40	Other Structures	144,554	114,675		114,675	114,675
24	352.01	Well Construction	2,172,800	1,786,876		1,786,876	1,786,876
25	352.20	Well Equipment	579,991	442,387		442,387	442,387
26	352.10	Leaseholds	178,530	140,329		140,329	140,329
27	352.11	Storage Rights	54,614	43,346		43,346	43,346
28	353.10	Field Lines	261,841	144,166		144,166	144,166
29	353.20	Tributary Lines	228,934	167,806		167,806	167,806
30	354.00	Compressor Station Equipment	470,685	380,173		380,173	380,173
31	355.00	Meas & Reg. Equipment	288,851	233,594		233,594	233,594
32	356.00	Purification Equipment	239,930	192,280		192,280	192,280
33							
34		Total Storage Plant	5,031,452	3,763,778		3,763,778	0 3,763,778

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Accumulated Depreciation & Amortization
13 Month Avg. - Forecasted Period ended December 31, 2000

Data: ___ Base Period X Forecasted Period
Type of Filing: ___ Original ___ Updated X Revised
Workpaper Reference No(s): Sched. B-3.1 & wp B-3

FR 10(10)(b)3
Schedule B-3
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Witness:

Line No.	Acct. No.	Account Title	Forecasted	Reserve Balances			Adjusted
			Total Company Investment (D)	Total Company (E)	Jurisd. Percent (F)	Jurisdictional Total (G)	Adjustments (H)	Jurisdiction (I)
<u>Transmission Plant</u>							
1	365.10	Land	26,951	0		0	0
2	365.20	Rights of Way	403,419	266,305		266,305	266,305
3	366.20	Structures & Improvements	32,921	21,936		21,936	21,936
4	366.30	Other Structures	69,172	46,388		46,388	46,388
5	367.00	Mains	19,441,293	13,143,620		13,143,620	13,143,620
6	369.10	Meas. & Reg. Equipment	2,995,622	2,054,801		2,054,801	2,054,801
7							
8		Total Production Plant - LPG	22,969,379	15,533,051		15,533,051	0 15,533,051
9							
<u>Distribution Plant</u>							
11	374.10	Land Town Border	61,710	0		0	0
12	374.30	Land Other	2,784	0		0	0
13	374.20	Right of Way	44,872	20,077		20,077	20,077
14	375.10	Structures & Improvements T.B.	106,376	49,106		49,106	49,106
15	375.02	Structures & Improvements Other	0	0		0	0
16	375.03	Improvements	7,518	3,551		3,551	3,551
17	375.20	Land Rights	46,591	22,010		22,010	22,010
18	376.00	Mains	75,047,099	33,215,849		33,215,849	33,215,849
19	375.10	Meas. & Reg. Sta. Equipment General	2,363,549	919,245		919,245	919,245
20	379.30	Meas & Reg. Sta. Equipment T.b.	1,917,181	802,795		802,795	802,795
21	380.00	Services	45,854,769	20,457,751		20,457,751	20,457,751
22	381.00	meters	19,396,585	8,429,666		8,429,666	8,429,666
23	381.02	V & P Gauges	109,524	53,192		53,192	53,192
24	382.00	Meter Installations	14,560,567	6,479,383		6,479,383	6,479,383
25	383.00	Regulators Service	3,733,713	1,659,558		1,659,558	1,659,558
26	383.02	Regulators Relief	481,545	232,004		232,004	232,004
27	384.00	House Reg. Installations	166,402	77,400		77,400	77,400
28	385.01	Ind. Meas. & Reg. Sta. Equipment	3,211,613	1,427,421		1,427,421	1,427,421
29							
30		Total Distribution Plant	167,112,395	73,849,009		73,849,009	0 73,849,009

Western Kentucky Gas Company

Case No. 99-070

Jurisdictional Accumulated Depreciation & Amortization

13 Month Avg. - Forecasted Period ended December 31, 2000

Data: ___ Base Period _X_ Forecasted Period
 Type of Filing: ___ Original ___ Updated _X_ Revised
 Workpaper Reference No(s): Sched. B-3.1 & wp B-3

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 Schedule B-3
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 Witness:

Line No.	Acct. No.	Account Title	Forecasted	Reserve Balances			Adjusted
			Total Company Investment (D)	Total Company (E)	Jurisd. Percent (F)	Jurisdictional Total (G)	Adjustments (H)	Jurisdiction (I)
General Plant **							
1	389.10	Land	44,728	0		0	0
2	390.02	Structures & Improvements	316,621	100,597		100,597	100,597
3	390.03	Improvements	64,111	34,189		34,189	34,189
4	390.04	Air Conditioning Equipment	9,771	5,425		5,425	5,425
5	390.05	Total Energy	0	0		0	0
6	390.09	Improvement to leased Premises	2,504,775	1,220,766		1,220,766	1,220,766
7	391.00	General Office Equipment	2,550,590	1,219,510		1,219,510	1,219,510
8	391.82	General Office Equipment	16,898	15,146		15,146	15,146
9	391.83	Office Furn - Copiers & Typewriters	405,141	281,098		281,098	281,098
10	392.00	Transportation Equipment	6,054,009	3,933,006		3,933,006	3,933,006
11	382.02	Trailers	165,970	108,135		108,135	108,135
12	392.00	Stores Equipment	0	0		0	0
13	394.77	Tools & Work Equipment	3,082,589	1,745,524		1,745,524	1,745,524
14	396.93	Ditchers	853,615	461,137		461,137	461,137
15	396.94	Backhoes	706,023	399,615		399,615	399,615
16	396.95	Welders	92,413	52,306		52,306	52,306
17	397.00	Communication Equipment - Phones	1,293,379	603,212		603,212	603,212
18	397.20	Communication Equip. - Fixed Radios	28,653	13,452		13,452	13,452
19	397.21	Communication Equipment - Mobile Radios	68,220	36,054		36,054	36,054
20	397.22	Communication Equip. - Telemetering	114,695	70,005		70,005	70,005
21	398.00	Miscellaneous Equipment	153,632	62,394		62,394	62,394
22	399.00	Other Tangible Property	11,061	3,824		3,824	3,824
23	399.84	Other Tangible Property - CPU	196,508	190,242		190,242	190,242
24	399.85	Other Tangible Property - MF Hardware	607,494	338,053		338,053	338,053
25	399.86	Other Tangible Property - PC Hardware	3,551,824	1,527,719		1,527,719	1,527,719
26	399.87	Other Tang. Property - P.C. Software	546,060	365,551		365,551	365,551
27	399.88	Other Tang. Property - Application Software	20,278,490	3,714,353		3,714,353	3,714,353
28	399.89	Other Tang. Property - System Software	502,523	553,715		553,715	553,715
29	39x.xx1	Server Hardware	695,971	120,493		120,493	120,493
30	39x.xx2	Server Software	228,311	39,527		39,527	39,527
31	39x.xx3	Network Cost	332,234	57,519		57,519	57,519
32	39x.xx4	Start Up Cost	5,696,831	574,931		574,931	574,931
33	999.00	Cushion Gas	1,694,833	0		0	0
34							
35		Total General Plant	52,867,971	17,847,497		17,847,497	0 17,847,497
36							
37		Total Plant	248,939,511	111,910,842		111,910,842	0 111,910,842

** All General Plant amounts include Western Kentucky Gas general plant 100%, plus an allocation of General Office general plant at 16.657% KY residual factor.

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 38
Witness: Donald P. Burman

Data Request:

Refer to the Application, Volume 10 of 10, Tab 2, Schedule B-3.2. Each of the accounts listed below is shown on Schedule B-3.2 as being fully depreciated. Explain why Western has included a 12-month depreciation expense for each of these accounts, and why it is reasonable to include depreciation expense for a plant account that is fully depreciated per the company's books.

- a. Account No. 331.00 – Production Gas Wells Equipment (base period only).
- b. Account No. 332.10 – Field Lines (base period only).
- c. Account No. 332.20 – Tributary Lines (base period only).
- d. Account No. 334.00 – Field Meas. & Reg. Station Equipment (base period only).
- e. Account No. 351.20 – Compression Station Equipment (base and forecasted periods).
- f. Account No. 366.30 – Other Structures (base and forecasted periods).
- g. Account No. 375.10 – Meas. & Reg. Station Equipment General. (base and forecasted periods).

Response:

As noted in the response to DR Item 37, Western does not maintain accumulated depreciation accounts for each individual 300 asset account, but rather maintains the accumulated depreciation accounts for classes of assets, i.e. transmission, distribution, etc. The accumulated depreciation accounts referred to above were interpolated by the Company. Unfortunately, in doing so, certain errors were made in the allocation of the amounts. A revised Schedule B-3.2 has been prepared, allocating the accumulated depreciation accounts to the various 300 asset accounts.

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account
Base Period Ended September 30, 1999

FR 10(10)(b)3.2
Schedule B-3.2
Page 1 of 6
Witness:

Data: X Base Period ___ Forecasted Period
Type of Filing: ___ Original ___ Updated X Revised
Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Line No.	Acct. No.	Account Titles	Total Company Adjusted Jurisdiction			Annual Accrual Rate
			13 month average		12 Month	
(A)	(B)	(C)	Investment (D)	Reserve (E)	Expense (F)	(G)
1		<u>Intangible Plant</u>				
2	301.00	Organization	8,330	0	0	Amort
3	302.00	Franchises & Consents	119,853	119,853	0	Amort
4						
5		Total Intangible Plant	128,182	119,853	0	
6						
7		<u>Natural Gas Production Plant</u>				
8	325.20	Producing Leaseholds	2,353	0	0	0.00%
9	325.40	Rights of Ways	6,069	5,744	0	0.00%
10	331.00	Production Gas Wells Equipment	3,492	3,331	51	1.53%
11	332.10	Field Lines	47,163	44,969	648	1.44%
12	332.20	Tributary Lines	528,218	503,644	7,260	1.44%
13	334.00	Field Meas. & Reg. Sta. Equip	198,469	189,289	2,917	1.54%
14	336.00	Purification Equipment	44,369	42,133	0	0.00%
15						
16		Total Natural Gas Production Plant	830,133	789,110	10,877	
17						
18		<u>Storage Plant</u>				
19	350.10	Land	261,127	0	0	0.00%
20	350.20	Rights of Way	4,682	3,524	41	0.92%
21	351.20	Compression Station Equipment	121,402	92,856	3,314	2.86%
22	351.30	Meas. & Reg. Sta. Structures	23,138	17,718	632	2.86%
23	351.40	Other Structures	144,554	110,688	3,946	2.86%
24	352.01	Well Construction	2,180,995	1,675,569	101,174	4.86%
25	352.20	Well Equipment	547,827	413,450	25,413	4.86%
26	352.10	Leaseholds	178,530	136,738	4,993	2.93%
27	352.11	Storage Rights	54,614	41,830	1,527	2.93%
28	353.10	Field Lines	190,173	137,146	6,517	3.59%
29	353.20	Tributary Lines	212,186	160,825	7,271	3.59%
30	354.00	Compressor Station Equipment	470,685	362,087	18,779	4.18%
31	355.00	Meas & Reg. Equipment	288,851	222,097	11,139	4.04%
32	356.00	Purification Equipment	239,930	184,301	8,611	3.76%
33						
34			4,918,694	3,558,829	193,356	

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account
Base Period Ended September 30, 1999

FR 10(10)(b)3.2
Schedule B-3.2
Page 2 of 6
Witness:

Data: Base Period Forecasted Period
Type of Filing: Original Updated Revised
Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Line No. (A)	Acct. No. (B)	Account Titles (C)	Total Company Adjusted Jurisdiction			Annual Accrual Rate (G)
			13 month average		12 Month	
			Investment (D)	Reserve (E)	Expense (F)	
<u>Transmission Plant</u>						
1	365.10	Land	26,951	0	0	0.00%
2	365.20	Rights of Way	403,419	261,725	3,543	0.92%
3	366.20	Structures & Improvements	23,859	21,496	355	1.56%
4	366.30	Other Structures	69,172	45,246	1,030	1.56%
5	367.00	Mains	19,310,530	12,670,085	447,895	2.43%
6	369.10	Meas. & Reg. Equipment	2,962,806	1,956,457	78,901	2.79%
7						
8		Total Production Plant - LPG	22,796,738	14,955,009	531,724	
9						
<u>Distribution Plant</u>						
11	374.10	Land Town Border	61,836	0	0	0.00%
12	374.30	Land Other	2,784	0	0	0.00%
13	374.20	Right of Way	44,872	19,415	364	0.85%
14	375.10	Structures & Improvements T.B.	106,376	46,541	2,782	2.74%
15	375.02	Structures & Improvements Other	0	0	0	2.74%
16	375.03	Improvements	7,518	3,339	197	2.74%
17	375.20	Land Rights	46,591	20,694	1,219	2.74%
18	376.00	Mains	69,803,621	30,525,555	2,331,964	3.50%
19	375.10	Meas. & Reg. Sta. Equipment General	1,967,476	839,459	62,536	3.33%
20	379.30	Meas & Reg. Sta. Equipment T.b.	1,691,528	735,392	54,572	3.38%
21	380.00	Services	42,077,687	17,887,837	1,405,710	3.50%
22	381.00	meters	18,132,215	7,807,827	560,753	3.24%
23	381.02	V & P Gauges	109,524	48,793	3,387	3.24%
24	382.00	Meter Installations	13,621,909	5,865,972	508,383	3.91%
25	383.00	Regulators Service	3,477,781	1,527,007	103,902	3.13%
26	383.02	Regulators Relief	481,545	214,385	14,387	3.13%
27	384.00	House Reg. Installations	160,998	71,171	4,610	3.00%
28	385.01	Ind. Meas. & Reg. Sta. Equipment	2,970,314	1,307,712	96,679	3.41%
29						
30			154,764,573	66,921,098	5,151,445	

Western Kentucky Gas Company

Case No. 99-070

Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account

Base Period Ended September 30, 1999

FR 10(10)(b)3.2

Data: X Base Period ___ Forecasted Period

Schedule B-3.2

Type of Filing: ___ Original ___ Updated X Revised

Page 3 of 6

Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Schedule B-3.2

Line No.	Acct. No.	Account Titles	Total Company Adjusted Jurisdiction			Annual Accrual Rate
			13 month average		12 Month	
(A)	(B)	(C)	Investment (D)	Reserve (E)	Expense (F)	(G)
<u>General Plant</u>						
1	389.10	Land	44,728	0	0	0.00%
2	390.02	Structures & Improvements	244,220	92,671	4,942	2.12%
3	390.03	Improvements	64,111	32,958	1,297	2.12%
4	390.04	Air Conditioning Equipment	9,771	5,039	361	3.87%
5	390.05	Total Energy	0	0	0	0.00%
6	390.09	Improvement to leased Premises	2,389,182	1,008,493	65,948	5.00%
7	391.00	General Office Equipment	2,296,800	1,063,548	63,055	3.87%
8	391.82	General Office Equipment	15,691	12,847	0	0.00%
9	391.83	Office Furn - Copiers & Typewriters	389,359	262,804	7,406	3.87%
10	392.00	Transportation Equipment	6,048,032	3,241,760	510,694	8.86%
11	392.20	Trailers	165,970	89,107	14,036	8.86%
12	393.00	n/a	0	0	0	0.00%
13	394.77	Tools & Work Equipment	3,071,424	1,593,002	130,768	4.47%
14	396.93	Ditchers	845,786	426,505	36,086	4.47%
15	396.94	Backhoes	706,023	361,976	30,123	4.47%
16	396.95	Welders	92,413	47,403	3,943	4.47%
17	397.00	Communication Equipment - Phones	1,032,385	509,103	60,419	7.05%
18	397.20	Communication Equip. - Fixed Radios	21,697	11,529	1,460	7.05%
19	397.21	Communication Equipment - Mobile Radios	60,768	30,971	4,089	7.05%
20	397.22	Communication Equip. - Telemetering	114,695	60,485	7,718	7.05%
21	398.00	Miscellaneous Equipment	145,042	49,584	4,278	12.09%
22	399.00	Other Tangible Property	10,271	62,799	0	0.00%
23	399.84	Other Tangible Property - CPU	182,472	128,503	0	0.00%
24	399.85	Other Tangible Property - MF Hardware	596,748	266,176	38,481	10.04%
25	399.86	Other Tangible Property - PC Hardware	2,194,113	810,384	307,819	20.60%
26	399.87	Other Tang. Property - P.C. Software	410,794	244,532	47,674	20.60%
27	399.88	Other Tang. Property - Application Software	9,044,627	1,868,224	405,562	8.22%
28	399.89	Other Tang. Property - System Software	466,628	404,490	0	0.00%
29	39x.xx1	Server Hardware	321,217	12,358	43,813	14.29%
30	39x.xx2	Server Software	105,374	4,054	14,373	14.29%
31	39x.xx3	Network Cost	153,339	5,899	20,915	14.29%
32	39x.xx4	Start Up Cost	2,629,307	58,967	209,056	8.33%
33	999.00	Cushion Gas	1,694,833	0	0	0.00%
34						
35		Total General Plant	35,567,821	12,766,173	2,034,315	
36						
37		Total Plant	219,006,142	99,110,071	7,921,717	

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account
Forecasted Period ended December 31, 2000

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Schedule B-3.2
Page 4 of 6
Witness:

Data: ___ Base Period _X_ Forecasted Period
Type of Filing: ___ Original ___ Updated _X_ Revised
Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Line No.	Acct. No.	Account Titles	Total Company Adjusted Jurisdiction			Annual Accrual Rate
			13 Month Avg.		12 Month	
(A)	(B)	(C)	Investment (D)	Reserve (E)	Expense (F)	(G)
1		<u>Intangible Plant</u>				
2	301.00	Organization	8,330	0	0	Amort
3	302.00	Franchises & Consents	119,853	119,853	0	Amort
4						
5		Total Intangible Plant	128,182	119,853	0	
6						
7		<u>Natural Gas Production Plant</u>				
8	325.20	Producing Leaseholds	2,353	0	0	0.00%
9	325.40	Rights of Ways	6,069	5,744	0	0.00%
10	331.00	Production Gas Wells Equipment	3,492	3,372	0	0.00%
11	332.10	Field Lines	47,163	45,484	0	0.00%
12	332.20	Tributary Lines	528,218	509,413	0	0.00%
13	334.00	Field Meas. & Reg. Sta. Equip	198,469	191,651	0	0.00%
14	336.00	Purification Equipment	44,369	41,991	0	0.00%
15						
16		Total Natural Gas Production Plant	830,133	797,655	0	
17						
18		<u>Storage Plant</u>				
19	350.10	Land	261,127	0	0	0.00%
20	350.20	Rights of Way	4,682	3,577	41	0.92%
21	351.20	Compression Station Equipment	121,774	96,212	2,243	1.93%
22	351.30	Meas. & Reg. Sta. Structures	23,138	18,356	426	1.93%
23	351.40	Other Structures	144,554	114,675	2,663	1.93%
24	352.01	Well Construction	2,172,800	1,786,876	56,204	2.71%
25	352.20	Well Equipment	579,991	442,387	15,003	2.71%
26	352.10	Leaseholds	178,530	140,329	511	0.30%
27	352.11	Storage Rights	54,614	43,346	954	1.83%
28	353.10	Field Lines	261,841	144,166	3,374	1.35%
29	353.20	Tributary Lines	228,934	167,806	2,950	1.35%
30	354.00	Compressor Station Equipment	470,685	380,173	6,784	1.51%
31	355.00	Meas & Reg. Equipment	288,851	233,594	5,680	2.06%
32	356.00	Purification Equipment	239,930	192,280	2,977	1.30%
33						
34		Total Storage Plant	5,031,452	3,763,778	99,810	

Western Kentucky Gas Company
Case No. 99-070
Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account
Forecasted Period ended December 31, 2000

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Schedule B-3.2
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Witness:

Data: ___ Base Period _X_ Forecasted Period
Type of Filing: ___ Original ___ Updated _X_ Revised
Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Line No.	Acct. No.	Account Titles	Total Company Adjusted Jurisdiction			Annual Accrual Rate
			13 Month Avg.		12 Month	
			Investment	Reserve	Expense	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
<u>Transmission Plant</u>						
1	365.10	Land	26,951	0	0	0.00%
2	365.20	Rights of Way	403,419	266,305	3,427	0.89%
3	366.20	Structures & Improvements	32,921	21,936	437	1.39%
4	366.30	Other Structures	69,172	46,388	918	1.39%
5	367.00	Mains	19,441,293	13,143,620	235,670	1.27%
6	369.10	Meas. & Reg. Equipment	2,995,622	2,054,801	65,193	2.28%
7						
8		Total Production Plant - LPG	22,969,379	15,533,051	305,644	
9						
<u>Distribution Plant</u>						
11	374.10	Land Town Border	61,710	0	0	0.00%
12	374.30	Land Other	2,784	0	0	0.00%
13	374.20	Right of Way	44,872	20,077	720	1.68%
14	375.10	Structures & Improvements T.B.	106,376	49,106	1,980	1.95%
15	375.02	Structures & Improvements Other	0	0	0	1.95%
16	375.03	Improvements	7,518	3,551	140	1.95%
17	375.20	Land Rights	46,591	22,010	867	1.95%
18	376.00	Mains	75,047,099	33,215,849	1,712,016	2.39%
19	375.10	Meas. & Reg. Sta. Equipment General	2,363,549	919,245	56,175	2.49%
20	379.30	Meas & Reg. Sta. Equipment T.b.	1,917,181	802,795	47,030	2.57%
21	380.00	Services	45,854,769	20,457,751	3,002,511	6.86%
22	381.00	meters	19,396,585	8,429,666	620,220	3.35%
23	381.02	V & P Gauges	109,524	53,192	3,502	3.35%
24	382.00	Meter Installations	14,560,567	6,479,383	425,281	3.06%
25	383.00	Regulators Service	3,733,713	1,659,558	101,569	2.85%
26	383.02	Regulators Relief	481,545	232,004	13,100	2.85%
27	384.00	House Reg. Installations	166,402	77,400	5,353	3.37%
28	385.01	Ind. Meas. & Reg. Sta. Equipment	3,211,613	1,427,421	83,688	2.73%
29						
30		Distribution Plant	167,112,395	73,849,009	6,074,149	

Western Kentucky Gas Company
Case No. 99-070

Jurisdictional Depreciation Expense, Accum. Reserve & Accrual Rates by Account
Forecasted Period ended December 31, 2000

FR 10(10)(b)3.2
Schedule B-3.2
Page 6 of 6
Witness:

Data: ___ Base Period _X_ Forecasted Period
Type of Filing: ___ Original ___ Updated _X_ Revised
Workpaper Reference No(s): Sched. B-3 & wp B-3.2

Line No.	Acct. No.	Account Titles	Total Company Adjusted Jurisdiction			Annual Accrual Rate
			13 Month Avg.		12 Month	
(A)	(B)	(C)	Investment (D)	Reserve (E)	Expense (F)	(G)
1		<u>General Plant</u>				
2	389.10	Land	44,728	0	0	0.00%
3	390.02	Structures & Improvements	316,621	100,597	6,407	2.12%
4	390.03	Improvements	64,111	34,189	1,297	2.12%
5	390.04	Air Conditioning Equipment	9,771	5,425	198	2.12%
6	390.05	Total Energy	0	0	0	0.00%
7	390.09	Improvement to leased Premises	2,504,775	1,220,766	67,095	5.00%
8	391.00	General Office Equipment	2,550,590	1,219,510	125,407	7.05%
9	391.82	General Office Equipment	16,898	15,146		
10	391.83	Office Furn - Copiers & Typewriters	405,141	281,098	13,491	7.05%
11	392.00	Transportation Equipment	6,054,009	3,933,006	514,601	8.92%
12	382.02	Trailers	165,970	108,135	14,131	8.92%
13	393.00	Stores Equipment	0	0	0	0.00%
14	394.77	Tools & Work Equipment	3,082,589	1,745,524	96,289	3.28%
15	396.93	Ditchers	853,615	461,137	22,732	2.79%
16	396.94	Backhoes	706,023	399,615	18,802	2.79%
17	396.95	Welders	92,413	52,306	2,461	2.79%
18	397.00	Communication Equipment - Phones	1,293,379	603,212	57,027	5.21%
19	397.20	Communication Equip. - Fixed Radios	28,653	13,452	1,425	5.21%
20	397.21	Communication Equipment - Mobile Radios	68,220	36,054	3,393	5.21%
21	397.22	Communication Equip. - Telemetry	114,695	70,005	5,704	5.21%
22	398.00	Miscellaneous Equipment	153,632	62,394	3,871	10.94%
23	399.00	Other Tangible Property	11,061	3,824	0	0.00%
24	399.84	Other Tangible Property - CPU	196,508	190,242	0	0.00%
25	399.85	Other Tangible Property - MF Hardware	607,494	338,053	4,512	1.19%
26	399.86	Other Tangible Property - PC Hardware	3,551,824	1,527,719	499,802	18.51%
27	399.87	Other Tang. Property - P.C. Software	546,060	365,551	52,631	15.85%
28	399.88	Other Tang. Property - Application Software	20,278,490	3,714,353	1,439,687	12.50%
29	399.89	Other Tang. Property - System Software	502,523	553,715	0	0.00%
30	39x.xx1	Server Hardware	695,971	120,493	94,929	14.29%
31	39x.xx2	Server Software	228,311	39,527	31,141	14.29%
32	39x.xx3	Network Cost	332,234	57,519	45,316	14.29%
33	39x.xx4	Start Up Cost	5,696,831	574,931	452,954	8.33%
34	999.00	Cushion Gas	1,694,833	0	0	0.00%
35						
36		Total General Plant	52,867,971	17,847,497	3,575,303	
37						
38		Total Plant	248,939,511	111,910,842	10,054,907	

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 39 a
Witness: Adams

Data Request:

Refer to the Application, Volume 10 of 10, Tab 6, Schedule F-6. Provide the following information concerning the costs for the preparation of this case:

- a. A detailed schedule of costs incurred to date. Include the date of the transaction, check number or other document reference, the vendor, amount, a description of the services performed, and the account number in which the expenditure was recorded. Indicate any costs incurred for this case during the base year. Include copies of invoices received from the vendors.

Response:

- a. See attached schedule entitled "Rate Application Costs Incurred By Western Kentucky Gas Company Case No. 99-070 Account WKG10143". Vendor invoices are enclosed.

RATE APPLICATION COSTS INCURRED BY WESTERN KENTUCKY GAS COMPANY

CASE NO. 99-070

ACCOUNT WKG10143

BY	Date	Check Number	Vendor	Consultants	Legal	Public Notice	Printing	Employee Expense	Meetings/ Misc.	Labor
*	3/3/99	189357	Consultants							
*	4/1/99	195638	Applied Energy Groups Inc.	12,560.00						
*	5/1/99	203677	Applied Energy Groups Inc.	1,440.00						
*	3/4/99	191808	Applied Energy Groups Inc.	540.00						
*	5/27/99	307492	Deloitte & Touche	10,410.00						
	1/21/98	188576	Deloitte & Touche	1,868.03						
	4/22/98	117347	Deloitte & Touche	2,100.00						
*	2/18/99	187701	Deloitte & Touche	2,310.00						
*	4/1/99	195935	Deloitte & Touche	31,865.00						
*	4/29/99	201832	Deloitte & Touche	4,005.00						
*	11/30/98	169010	Deloitte & Touche	16,064.05						
*	12/29/98	176324	CH Guernsey & Company	150.00						
*	3/31/99	195668	CH Guernsey & Company	2,700.72						
*	4/21/99	200378	CH Guernsey & Company	7,138.09						
*	5/19/99	305577	CH Guernsey & Company	1,726.04						
*	2/28/99	189367	Lukens Consulting Group	8,257.93						
*	3/31/99	197302	Lukens Consulting Group	33,997.17						
*	4/30/99	203723	Lukens Consulting Group	18,997.39						
*	5/31/99	305697	Lukens Consulting Group	15,033.79						
*	6/30/99	307625	Lukens Consulting Group	6,896.06						
*	11/2/98	165301	Lukens Consulting Group	247.50						
*	11/30/98	168815	Utility & Economic Consulting, Inc.	1,740.50						
*	1/4/99	175914	Utility & Economic Consulting, Inc.	2,016.50						
*	3/1/99	189341	Utility & Economic Consulting, Inc.	625.00						
*	4/3/99	197895	Utility & Economic Consulting, Inc.	3,306.33						
*	4/30/99	201624	Utility & Economic Consulting, Inc.	1,016.50						
*	6/1/99	305805	Utility & Economic Consulting, Inc.	1,016.50						
			Utility & Economic Consulting, Inc.	4,300.55						

Date	Check Number	Vendor	Consultants	Legal	Public Notice	Printing	Employee Expense	Meetings/ Misc.	Labor
		<u>Legal</u>							
* 2/28/99	205519	Sheffer, Hutchinson, Kinney		1,512.70					
* 3/31/99	205519	Sheffer, Hutchinson, Kinney		8,430.55					
* 4/30/99	205519	Sheffer, Hutchinson, Kinney		5,676.78					
* 3/3/99	201812	Ward & Anderson, P.C.		3,757.83					
		<u>Public Notice</u>							
* 6/30/99	306879	The Anderson News			1,137.78				
* 6/30/99	307522	The Advocate Messenger			1,544.13				
* 6/30/99	306911	Central KY News-Journal			1,040.04				
* 6/30/99	306935	Daily News			2,171.61				
* 6/30/99	307589	Glasgow Daily Times			2,547.75				
* 6/30/99	306988	Kentucky New Era			3,498.39				
* 6/30/99	308769	The Messenger			2,126.25				
* 6/30/99	307638	News-Democrat & Leader			970.20				
* 6/30/99	307682	The Sentinel-News			1,173.69				
* 6/30/99	306444	Owensboro Messenger Inquirer			4,411.26				
* 6/30/99	306446	The Paducah Sun			4,231.71				
* 6/30/99	306517	The Times Leader			1,265.62				
		<u>Printing</u>							
* 5/28/99	305742	Progress Printing				4,042.61			
* 6/15/99	306464	Progress Printing				808.53			
		<u>Employee Expense</u>							
* 4/5/99	3703	Betty L. Adams					2,237.63		
* 5/15/99	205903	Rebecca M. Buchanan					218.14		
* 4/10/99	3732	Donald P. Burman					484.20		
* 5/13/99	300704	Donald P. Burman					1,021.39		
* 4/6/99	3793	Tom S. Hawkins, Jr.					1,189.55		
* 5/5/99	3954	Tom S. Hawkins, Jr.					2,381.14		
* 6/18/99	304564	Tom S. Hawkins, Jr.					1,510.61		
* 4/1/99	3697	Sid Hudson					323.49		
* 4/15/99	198600	Thomas H. Petersen					1,515.87		

Date	Check No.	Vendor	Consultants	Legal	Public Notice	Printing	Employee Expense	Meetings/Misc.	Labor
		Employee Expense - cont'd							
*	6/7/99	300711					1,229.34		
*	5/1/99	201347					1,162.36		
		Meetings/Misc. - cont'd.							
*	2/3/99	188134						65.00	
*	2/23/99	188134						35.00	
*	3/2/99	188929						65.00	
*	5/28/99	305756						324.67	
*	5/18/99	305730						135.38	
*	6/22/99	309390						185.12	
*	3/23/99	193186						162.08	
*	4/12/99	197028						18.19	
*	3/23/99	193041						18.19	
*	4/12/99	197013						13.77	
*	4/26/99	199351						9.95	
		Labor							\$452.05
		19.5 hrs.							
Totals			\$192,328.65	\$19,377.86	\$26,118.43	\$4,851.14	\$13,273.72	\$1,032.35	\$452.05

Grand Total to Date \$257,434.20

* Note: All costs are base year (BY) unless otherwise indicated

M-7

55274

March 3, 1999

Mr. Bill Senter
 VP Rates & Regulatory Affairs
 Western Kentucky Gas Company
 2401 New Hartford Road
 Owensboro, Kentucky 42303

RECEIVED
 MAR 10 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Invoice:

Professional time for the month of February, 1999 in support of Western Kentucky Gas' upcoming Rate Case. (This invoice represents the completion of Tasks 1&2).

CONSULTING PROJECTS:

	<u>Hours</u>	<u>Rate</u>	<u>Total</u>
Senior Partners	56.00	\$180.00	\$10,080.00
Managing Consultants	24.00	\$90.00	\$2,160.00
Support	<u>8.00</u>	\$40.00	<u>\$320.00</u>
Subtotal	88.00		\$12,560.00

TOTAL CONSULTANT FEES:**\$12,560.00****INVOICE TOTAL (Net 30 Days):****\$12,560.00**

If you have any questions or require additional information, please contact the undersigned.

Sincerely,



Michael Marks
 Senior Partner

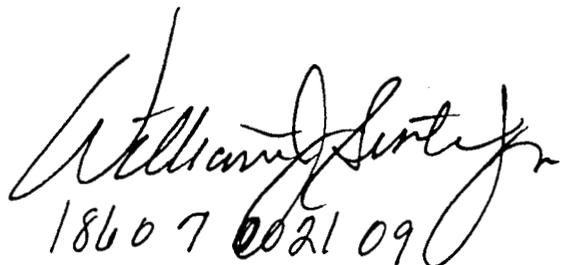
MM/rz

Note

3/10/99

CR# 189357

\$12560.00



18607 002109

April 1, 1999

Mr. Bill Senter
 VP Rates & Regulatory Affairs
 Western Kentucky Gas Company
 2401 New Hartford Road
 Owensboro, Kentucky 42303

Invoice:

Professional time for the month of March, 1999 in support of Western Kentucky Gas' upcoming Rate Case. (This invoice represents the completion of Task 3.)

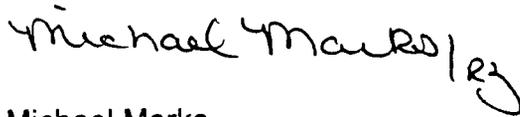
CONSULTING PROJECTS:	<u>Hours</u>	<u>Rate</u>	<u>Total</u>
Senior Partner	8.00	\$180.00	\$1,440.00
Subtotal	8.00		\$1,440.00

TOTAL CONSULTANT FEES: \$1,440.00

INVOICE TOTAL (Net 30 Days): \$1,440.00

If you have any questions or require additional information, please contact the undersigned.

Sincerely,

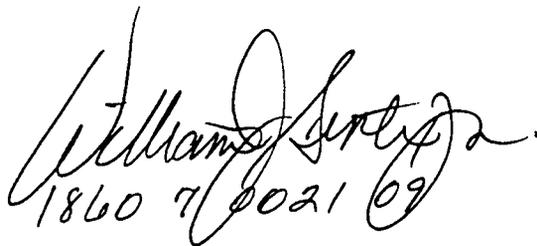


Michael Marks
 Senior Partner

MM/2

RECEIVED
 APR 07 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Note
 4/08/99
 CR#195638
 \$1,440.00



1860 7/0021 09

Rec'd 4.5.99 JA

55274

AEG

APPLIED ENERGY GROUP, INC.

SYSTEMS
CONSULTING
TECHNOLOGY

490 WHEELER ROAD, SUITE 100 ■ HAUPPAUGE, NEW YORK 11788 ■ (516) 434-1414 ■ FAX (516) 434-1212 ■ E-MAIL: AEGNEWYORK@aol.com

May 4, 1999

Mr. Bill Senter
VP Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
Owensboro, Kentucky 42303

Invoice:

Professional time for the month of April, 1999 in support of Western Kentucky Gas' upcoming Rate Case.

CONSULTING PROJECTS:	<u>Hours</u>	<u>Rate</u>	<u>Total</u>
Senior Partner	2.00	\$180.00	\$360.00
Manager	<u>2.00</u>	\$90.00	<u>\$180.00</u>
Subtotal	4.00		\$540.00

TOTAL CONSULTANT FEES: \$540.00

INVOICE TOTAL (Net 30 Days): \$540.00

If you have any questions or require additional information, please contact the undersigned.

Sincerely,

Michael Marks / R3

Michael Marks
Senior Partner

MM(z)

RECEIVED
MAY 14 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

William Senter
18607002109

0.4.11

Deloitte & Touche



49932

Deloitte & Touche LLP
Suite 1600
Chase Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone: (214) 777-7000

January 21, 1998

Mr. David Bickerstaff
Vice President and Controller
Atmos Energy Corp.
P.O. Box 650205
Dallas, TX 75265

Dear David:

Attached is our invoice for services associated with the Energas salvage returns with proper grouping, review of answers provided by Energas personnel, reformatting data for WKG, running edit and preparing reconciliation for the period November 29, 1998 through January 9, 1999.

Fees:

Rhonda Watts	38.5 hrs. @	\$210	\$8,085.00
		Total	<u>\$8,085.00</u>

\$5,985.00
\$2,100.00
per Rhonda Watts

Very truly yours,

[Signature]
Donald S. Roff

DSR/all

Enclosure

breakout by division

RECEIVED

MAR 04 1999

ATMOS ENERGY
ACCOUNTS RECEIVABLE

1860 7 0014 02

CK# 188576

[Signature]
Approved

Deloitte Touche
Tohmatsu

Deloitte & Touche LLP



Suite 1600
Texas Commerce Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone: (214) 777-7000

April 23, 1998

Mr. David Bickerstaff
Vice President and Controller
Atmos Energy Corp.
P.O. Box 650205
Dallas, TX 75265

Dear David:

Attached is our invoice for services associated with initiating study and setting up account sheets with pertinent data for the period March 22, 1998 through April 4, 1998.

Fees:

Rhonda Watts	11 hrs.	@	\$210	<u>\$2,310.00</u>
			Total	<u>\$2,310.00</u> (2)

Very truly yours,

Donald S. Roff

DSR/agb

Enclosure:

wk 67 per Rhonda Watts

CK# 117347

Deloitte Touche
Tohmatsu
International

Deloitte & Touche



49932

Deloitte & Touche LLP
Suite 1600
Chase Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone (214) 777-7000

February 18, 1999

Mr. David Bickerstaff
Vice President and Controller
Atmos Energy Corp.
P.O. Box 650205
Dallas, TX 75265

RECEIVED
FEB 26 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

Dear David:

Attached is our invoice for services provided for the period January 10, 1999 through February 6, 1999. Services included finalizing Energas rates and presentation for management. Services for WKG included preliminary discussion with operations, simulation analysis and evaluation as well as preliminary rate calculations.

Fees: Energas

Don Roff	4 hrs @ \$325	\$1,300.00
Rhonda Watts	23.5 hrs @ \$210	\$4,935.00
John Johnson	22 hrs @ \$150	<u>\$3,300.00</u>
		\$9,535.00 ✓

Fees: WKG

Don Roff	17 hrs @ \$325	\$5,525.00
Rhonda Watts	106.5 hrs @ \$210	\$22,365.00
John Johnson	26.5 hrs @ \$150	<u>\$3,975.00</u>
		\$31,865.00 ✓

Out of pocket expenses

\$9.75

Total

\$41,409.75

10

Very truly yours,

Donald S. Roff

DSR/all

Enclosure

Deloitte Touche
Tomatsu

Depreciation Study

1560 7 0014 10 v EMP 2 \$45.
 1560 7 0014 09 WKG \$51.5

31,872.50

CK# 187701

Approved
Donald B...
4/17/99

Deloitte & Touche



79932
code
not
silly
AD

Deloitte & Touche LLP
Suite 1600
Chase Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone: (214) 777-7000

March 4, 1999

RECEIVED

Mr. David Bickerstaff
Vice President and Controller
Atmos Energy Corp.
P.O. Box 650205
Dallas, TX 75265

MAR 10 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Dear David:

Attached is our invoice for services associated with the preparation of supporting schedules, discussion of results and strategies, and preparation of draft report for WKG for the period February 7, 1999 through February 20, 1999.

→ s/B division
09

Fees:

Don Roff	8 hrs @ \$325	\$2,600
Rhonda Watts	31.5 hrs @ \$210	6,615.00
John Johnson	7.5 hrs @ \$150	1,125.00
Administrative staff	1.4 hrs @ \$50	70.00
	Total	<u>\$10,410.00</u>

Very truly yours,

DM

Donald S. Roff

DSR/all

Enclosure

1860 7 0014 *DF* → *09*
Approved
placed bureau
3/14/99

Note:
2/28/99
CR # 191808
Deloitte Touche # 10410.00
Tohmatsu

Deloitte & Touche



Deloitte & Touche LLP

P.O. Box 840503
Dallas, Texas 75284-0503
Telephone: (214) 777-7000
Facsimile: (214) 777-7050
Taxpayer I.D. No. 13-3891517

Atmos Energy
P.O. Box 650205
Dallas, TX 75265

INVOICE NUMBER: **06088543**

DATE: 3/4/99

For services and expenses rendered through February 20, 1999.

\$10,410.00

Due and Payable Upon Receipt

Deloitte & Touche



Deloitte & Touche LLP

P.O. Box 840503

Dallas, Texas 75284-0503

Telephone: (214) 777-7000

Facsimile: (214) 777-7050

Taxpayer I.D. No. 13-3891517

Atmos Energy
P.O. Box 650205
Dallas, TX 75265

INVOICE NUMBER: 06088543

DATE: 3/4/99

For services and expenses rendered through February 20, 1999.

\$10,410.00

Due and Payable Upon Receipt

PLEASE RETURN THIS COPY WITH PAYMENT

Deloitte & Touche



Deloitte & Touche LLP
 Suite 1600
 Chase Tower
 2200 Ross Avenue
 Dallas, Texas 75201-6778

Telephone (214) 777-7000

April 1, 1999

Mr. Don Burman
 Assistant Controller
 Atmos Energy Corp.
 P.O. Box 650205
 Dallas, TX 75265

Dear Don:

Attached is our invoice for services associated with the workpaper compilation and review, and numerous discussions with WKG personnel.

Fees:

Rhonda Watts	15.5 hrs @ \$210	\$3,255.00
John Johnson	5 hrs @ \$150	750.00
	Total	<u>\$4,005.00</u>

Very truly yours,

Don

Donald S. Roff

DSR/all

Enclosure

CK# 195935
 4-1-99

Deloitte Touche
 Tomatsu

Deloitte & Touche



Deloitte & Touche LLP
Suite 1600
Chase Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone: (214) 777-7000

*Please verify
check to
James Lee
Hank*

April 29, 1999

RECEIVED

MAY 07 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Mr. Don Burman
Assistant Controller
Atmos Energy Corp.
P.O. Box 650205
Dallas, TX 75265

Dear Don:

Attached is our invoice for professional services rendered and expenses incurred for the period March 21 through April 17, 1999. Services included completion of depreciation rate calculations, supporting schedules, workpapers, and depreciation study report for WKG

Fees:

Don Roff	13 hrs @ \$325	\$4,225.00
Rhonda Watts	40 hrs @ \$210	8,400.00
John Johnson	16.5 hrs @ \$150	2,475.00
Secretary	14.28 hrs @ \$50	714.00
	Total	<u>\$15,814.00</u>

Expenses:

Photocopies	\$240.30
Meals	9.75
Total	\$250.05

TOTAL \$16,064.05

Very truly yours,

Don

Donald S. Roff

DSR/all

Enclosure

1860 7 0014 09
Donald Burman 5/6/99
approved

**Deloitte Touche
Tohnatsu**

AK# 201832

Deloitte & Touche



#114964

Deloitte & Touche LLP Telephone: (214) 777-7000
 Suite 1600
 Chase Tower
 2200 Ross Avenue
 Dallas, Texas 75201-6778

May 27, 1999

Mr. Don Burman
 Assistant Controller
 Atmos Energy Corp.
 P.O. Box 650205
 Dallas, TX 75265

RECEIVED
 JUN 03 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Dear Don:

RECEIVED
 JUN 11 1999

Attached is our invoice for professional services rendered and expenses incurred for the period April 18 through May 15, 1999. Services included final report and supporting workpapers for WKG and re-evaluation of Energas net salvage.

Fees:

Don Roff	1 hr @ \$325	\$325.00	€
Rhonda Watts	(WKG) 8.5 hrs @ \$210	1,785.00	W
	(Energas) 6 hrs @ \$210	1,260.00	€
	Total	\$3,370.00	

Expenses:

Postage/Courier \$83.03 W

\$3,453.03

Expend. Org
 SHARED SERVICES

Very truly yours,

Don
 Donald S. Roff

Project # 10165 TASK # DEFOR TOTAL Task # 10165
 Project # 10170 TASK # DEFOR TOTAL Task # 10170
 Consulting Services Energas \$1,585.
 Consulting Services Western Kentucky Gas Company \$1,868.
Don Burman 6/9/99
Approved

DSR/all

Enclosure



Deloitte Touche
 Tohmatsu

Note
 7/15/99
 CE# 307492



C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Remittance Address: P.O. Box 550017
Oklahoma City, OK 73185-0017
Federal ID # 73-0590316

RECEIVED

DEC 09 1998

ATMOS ENERGY
ACCOUNTS PAYABLE

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 11/30/98
INVOICE # : 074207
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

FOR PROFESSIONAL SERVICES RENDERED THROUGH 10/31/98
EXPERT WITNESS

LABOR	150.00
OUT-OF-POCKET EXPENSES	.00

PLEASE PAY THIS AMOUNT -----
150.00

S/B 4860 7 0021 09 2/10/99 JGJ
8700 0 6111 09 000 5004000

William J. Sentor Jr.
12/7/98

Note:
12/9/98
CR# 169010
\$150.00



C. H. GUERNSEY & COMPANY

Engineers • Architects • Consultants

Remittance Address: P.O. Box 550017

Oklahoma City, OK 73155-0017

Federal ID # 73-0590816

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 11/30/98
INVOICE # : 074207
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

LABOR & EXPENSE DETAIL

LABOR

	HOURS	RATE	AMOUNT
ENGINEER-1 / ANALYST-1 / CONSL	2.00	75.00	150.00
	-----		-----
	2.00		150.00
** Total Project OK-40052-000			150.00
			=====



35940

C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Remittance Address P.O. Box 850017
Oklahoma City, OK 73185-0017
Federal I.D. # 73-0590216

RECEIVED

JAN 12 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 12/29/98
INVOICE # : 074304
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

FOR PROFESSIONAL SERVICES RENDERED THROUGH 11/30/98
EXPERT WITNESS

LABOR	2,700.00
OUT-OF-POCKET EXPENSES	.72

PLEASE PAY THIS AMOUNT 2,700.72

S/B 1860 7 0021 09
8700 0 6111 09 000 5004000

William J. Sentor Jr.

Note:
1/13/99
CR # 176324
\$ 2700.72



C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Remittance Address: P.O. Box 850017
Oklahoma City, OK 73155-0017
Federal I.D. # 73-0590816

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 12/29/98
INVOICE # : 074304
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

LABOR & EXPENSE DETAIL

LABOR

	HOURS	RATE	AMOUNT
CONSULTING ECONOMIST	9.00	175.00	1,575.00
1 ENGINEER/CONSULTANT/ANALYST	15.00	75.00	1,125.00
	-----		-----
	24.00		2,700.00

EXPENSES

	AMOUNT
COPY CHARGES - IN HOUSE	
COPY CHARGES - INHOUSE	.72
JOB CHARGEABLE	

	.72

** Total Project OK-40052-000 2,700.72
=====



C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

35940

Office Address: P.O. Box 55, 1117
Cincinnati, OH 45215
Telephone: 513-763-1111

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 03/31/99
INVOICE # : 074869
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

FOR PROFESSIONAL SERVICES RENDERED THROUGH 02/28/99
EXPERT WITNESS

LABOR	7,136.25
OUT-OF-POCKET EXPENSES	1.84

PLEASE PAY THIS AMOUNT

7,138.09

RECEIVED

APR 07 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Notes
4/08/99
CR #195668
\$ 7,138.09

William Sentor Jr.
1860 70021 09

A. Williams



C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Remittance Address: P.O. Box 677117
Oklahoma City, Ok. 73165-0117
Federal ID # 73-0691416

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 03/31/99
INVOICE # : 074869
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

LABOR & EXPENSE DETAIL

LABOR

	HOURS	RATE	AMOUNT
CONSULTING ECONOMIST	29.00	175.00	5,075.00
SR.-2 ENGINEER/CONSULTANT/ANAL	24.25	85.00	2,061.25
	-----		-----
	53.25		7,136.25

EXPENSES

	AMOUNT
COPY CHARGES - IN HOUSE	
COPY CHARGES - INHOUSE	1.84
JOB CHARGEABLE	

	1.84

** Total Project OK-40052-000 7,138.09
=====

RECEIVED

APR 07 1999

ATMOS ENERGY
ACCOUNTS PAYABLE



35940

C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

400 North Capitol Street, Suite 1000
Cincinnati, Ohio 45246-1000
Phone (513) 263-1000

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 04/21/99
INVOICE # : 075052
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

FOR PROFESSIONAL SERVICES RENDERED THROUGH 03/31/99
EXPERT WITNESS

LABOR	1,725.00
OUT-OF-POCKET EXPENSES	1.04

PLEASE PAY THIS AMOUNT	----- 1,726.04
--------------------------	-------------------

1860 7 0021 09

William Sentor, Jr.

RECEIVED

APR 28 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Note:

4/30/99

CR# 200378

#1726.04



C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Atlanta Office - P.O. Box 890017
Atlanta, GA 30385-0017
Federal ID # 13-0590812

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 04/21/99
INVOICE # : 075052
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

LABOR & EXPENSE DETAIL

LABOR

	HOURS	RATE	AMOUNT
CONSULTING ECONOMIST	5.00	175.00	875.00
SR.-2 ENGINEER/CONSULTANT/ANAL	10.00	85.00	850.00
	-----		-----
	15.00		1,725.00

EXPENSES

	AMOUNT
COPY CHARGES - IN HOUSE	
COPY CHARGES - INHOUSE	1.04
JOB CHARGEABLE	

	1.04

** Total Project OK-40052-000 1,726.04
=====

RECEIVED
APR 28 1999
ATMOS ENERGY
ACCOUNTS PAYABLE



12678
C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants

Remittance Address: P.O. Box 850017
Oklahoma City, OK 73185-0017
Federal I.D. # 73-0590816

WESTERN KENTUCKY GAS CO.
BILL SENTOR
2401 N. HARTFORD ROAD
OWENSBORO, KY 42303

INV. DATE : 05/19/99
INVOICE # : 075233
PROJECT # : OK-40052-000
CLIENT # : C2684
CLIENT REF:

FOR PROFESSIONAL SERVICES RENDERED THROUGH 04/30/99
EXPERT WITNESS

LABOR	8,215.00
OUT-OF-POCKET EXPENSES	42.93

PLEASE PAY THIS AMOUNT	----- 8,257.93
--------------------------	-------------------

1860 14068 009000
William J. Swanson

WKG 10143 *Dified*
Consult WKG 2636

RECEIVED

JUN 01 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Note:
7/8/99
CR# 305577
\$ 8257.93

D. W. Swanson



M-7

Schedule of Services Rendered and Compensation Due

February 1, 1999 - February 28, 1999

WESTERN KENTUCKY

RECEIVED

MAR 10 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

55275

Case: Rate Case Testimony
Please remit to: Lukens Consulting Group, Inc.
1100 Louisiana, #2750
Houston, Texas 77002

Invoice# 1001

TOTAL: PROFESSIONAL SERVICES AND EXPENSES: \$33,997.17

Billing Detail February:

Consultants
Professional Services

	Hours	Rate/Hr.	\$Amount
Jay Lukens	17.7	\$325.00	\$5,752.50
Daniel Ives	72.75	\$225.00	\$16,368.75
Research Assistance			\$10,065.00

TOTAL PROFESSIONAL SERVICES: \$32,186.25

Expenses:

Computer Services	\$0.00
Mail	\$0.00
Phone	\$0.00
Travel, Meals	\$1,796.08
Reproductions	\$0.00
Purchased Data	\$14.84

Total: \$1,810.92

TOTAL: PROFESSIONAL SERVICES: \$32,186.25

TOTAL: EXPENSES: \$1,810.92

TOTAL: PROFESSIONAL SERVICES & EXPENSES: \$33,997.17

William J. Seitz
1860 70621 09

JPL
Jay P. Lukens
March 4, 1999
Tax ID #76-0588625

note:
3/10/99
CR# 189367
\$ 33,997.17

Dan's 2/10/99



March 3, 1999

Mr. William Senter
Vice President - Rates
And Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
Owensboro, KY 42303

Dear Bill:

Enclosed is our invoice for services through February 28, 1999. The invoice includes time and expenses for consultants and support staff. As discussed in the project estimate I sent you on February 25th, the activities to date include:

- Lukens, Ives client meeting in Nashville, TN
- Ives/Osterholm client meeting in Owensboro, KY
- Research assistance on area expansion tariffs, KY regulations, WKY tariff
- Meeting agenda preparation, client follow-up discussions
- Initial incremental cost study preparation
- Initial testimony preparation

Thank you very much for your business. Please call if you have any questions regarding this invoice.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dan", is written over the printed name.

Daniel M. Ives
Vice President

55275

Schedule of Services Rendered and Compensation Due

March 1, 1999 - March 31, 1999



WESTERN KENTUCKY

Case: Rate Case Testimony
Please remit to: Lukens Consulting Group, Inc.
1100 Louisiana, #2750
Houston, Texas 77002
Invoice# 1002

TOTAL: PROFESSIONAL SERVICES AND EXPENSES: \$18,997.39

Billing Detail March:

Consultants
Professional Services

	Hours	Rate/Hr.	\$Amount
Jay Lukens	0.6	\$325.00	\$195.00
Daniel Ives	53.7	\$225.00	\$12,082.50
Ryan Osterholm	47.3	\$125.00	\$5,912.50

TOTAL PROFESSIONAL SERVICES: \$18,190.00

Expenses:

Computer Services	\$234.02
Mail	\$12.75
Phone	\$15.86
Travel, Meals	\$544.76
Reproductions	\$0.00
Purchased Data	\$0.00
Total:	\$807.39

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APR 14 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

TOTAL: PROFESSIONAL SERVICES: \$18,190.00
TOTAL: EXPENSES: \$807.39
TOTAL: PROFESSIONAL SERVICES & EXPENSES: \$18,997.39

Note
4/15/99
CR# 197302
\$18,997.39 1860 70021 09
William J. Senter Jr.

Jay P. Lukens
April 7, 1999
Tax ID #76-0588625



April 7, 1999

Mr. William Senter
Vice President - Rates
And Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
Owensboro, KY 42303

Dear Bill:

Enclosed is our invoice for services in March 1999. The invoice includes time and expenses for consultants and support staff. Activities include:

- Deliver 1st draft testimony to client, review with client
- Deliver 2nd draft testimony to client
- Attend rate case meeting, Owensboro, March 23rd
- Prepare 10,15,20 year Premise Charge and interest method variations
- Make additional testimony and exhibit revisions following 3/23 client meeting
- Obtain new customer hook-up benchmark data for WGL, Piedmont. Lexis search for other benchmarks
- Multiple data collection contacts with Messrs. Senter, Doggette, Petersen, Hudson, Adams and Buchanan

Thank you very much for your business. Please call if you have any questions regarding this invoice.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dan", is written above the typed name.

Daniel M. Ives
Vice President

1100 Louisiana
Suite 2750
Houston, Texas 77002
713.659.1900
713.659.1914 fax

55275

Schedule of Services Rendered and Compensation Due

April 1, 1999 - April 30, 1999



WESTERN KENTUCKY

Case: Rate Case Testimony
Please remit to: Lukens Consulting Group, Inc.
1100 Louisiana, #2750
Houston, Texas 77002
Invoice# 1003

TOTAL: PROFESSIONAL SERVICES AND EXPENSES: \$15,033.79

Billing Detail April:

Consultants
Professional Services

Table with 4 columns: Name, Hours, Rate/Hr., \$Amount. Rows include Jay Lukens, Daniel Ives, Ryan Osterholm, and Greg Murphy.

TOTAL PROFESSIONAL SERVICES: \$14,431.25

Expenses:

Table with 2 columns: Expense Category, Amount. Categories include Computer Services, Mail, Phone, Travel, Meals, Reproductions, and Purchased Data.

RECEIVED
MAY 14 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

TOTAL: PROFESSIONAL SERVICES: \$14,431.25

TOTAL: EXPENSES: \$602.54

TOTAL: PROFESSIONAL SERVICES & EXPENSES: \$15,033.79

Handwritten notes: Note 5/17/99, CR# 203723, \$15033.79, and a signature with address 1860 70021 09.

Signature of Jay P. Lukens, dated May 5, 1999, Tax ID #76-0588625.

Handwritten note: Re: 5/10/99-10

12020
RECEIVED

Schedule of Services Rendered and Compensation Due

JUN 11 1999

May 1, 1999 - May 31, 1999

ATMOS ENERGY
ACCOUNTS PAYABLE



WESTERN KENTUCKY

Case: Rate Case Testimony

Please remit to: Lukens Consulting Group, Inc.
1100 Louisiana, #2750
Houston, Texas 77002

Invoice# 1004

TOTAL: PROFESSIONAL SERVICES AND EXPENSES: \$6,896.06

Billing Detail May:

Consultants
Professional Services

	Hours	Rate/Hr.	\$Amount
Daniel Ives	18.6	\$225.00	\$4,185.00
Ryan Osterholm	15.3	\$125.00	\$1,912.50
Christy Spivey	0.3	\$100.00	\$30.00

TOTAL PROFESSIONAL SERVICES: \$6,127.50

Expenses:

Computer Services	\$171.29
Mail	\$0.00
Phone	\$0.00
Travel, Meals	\$558.27
Reproductions	\$0.00
Purchased Data	\$39.00

Total: \$768.56

TOTAL: PROFESSIONAL SERVICES: \$6,127.50

TOTAL: EXPENSES: \$768.56

TOTAL: PROFESSIONAL SERVICES & EXPENSES: \$6,896.06

WKG 10143 defer consult WKG 2630
[Signature]

Jay P. Lukens
June 3, 1999
Tax ID #76-0588625

Note:
7/8/99
CR# 305697
#305697

1860 14068 009000
[Signature]

16.16



Schedule of Services Rendered and Compensation Due

June 1, 1999 - June 30, 1999

WESTERN KENTUCKY

Case: Rate Case Testimony
Please remit to: Lukens Consulting Group, Inc.
1100 Louisiana, #2750
Houston, Texas 77002
Invoice# 1005

TOTAL: PROFESSIONAL SERVICES AND EXPENSES: \$247.50

Billing Detail June:

Consultants
Professional Services

Table with 4 columns: Name, Hours, Rate/Hr., \$Amount. Row: Daniel Ives, 1.1, \$225.00, \$247.50

TOTAL PROFESSIONAL SERVICES: \$247.50

Expenses:

Table with 2 columns: Expense Type, \$Amount. Rows: Computer Services, Mail, Phone, Travel, Meals, Reproductions, Purchased Data, all \$0.00

Total: \$0.00

RECEIVED

JUL 14 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

TOTAL: PROFESSIONAL SERVICES: \$247.50

TOTAL: EXPENSES: \$0.00

TOTAL: PROFESSIONAL SERVICES & EXPENSES: \$247.50

Note: 7/16/99

CR# 307625

\$ 247.50

Signature of Jay P. Lukens

Jay P. Lukens
July 9, 1999
Tax ID #76-0588625

WKC 10143 Task DEFER Misc 2636
Signature of William J. ... 7/12/99

Done 7/12/99

**Utility and
Economic
Consulting, Inc.**

53985

November 2, 1998

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
P.O. Box 866
Owensboro, Kentucky 42302

*Approved
William Senter*

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period October 1 through October 31, 1998.

	Total Hours	Hourly Rate	Total
Fees	13.0	\$125	\$ 1,625.00
Expenses			115.50
TOTAL AMOUNT DUE			\$ 1,740.50

RECEIVED
NOV 16 1998

ATMOS ENERGY
ACCOUNTS PAYABLE

*Note:
11/20/98
CR# 165301
\$1740.50*

Payment is due by November 30, 1998. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

*5/B 1860 7 0021 09
89000 6111 09 000 5004000*

2/10/99 fgr

UTILITY AND ECONOMIC CONSULTING, INC.

October 1 through October 31, 1998

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	13.0	\$125	\$ 1,625.00
Total Consulting Services	13.0		\$ 1,625.00

EXPENSES

Mileage			
	CDB	0 miles 33¢/mile	\$ 0
	JKS	350 miles 33¢/mile	115.50
Lodging (receipts attached)			0
Meals (receipts attached)			0
Federal Express (receipt attached)			0
Parking (receipt attached)			<u>0</u>
Total Expenses			\$ 115.50
TOTAL AMOUNT DUE			\$ 1,740.50

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement for Jim Sharpe

October 1 through October 31, 1998

Consulting Services

Oct 20 Met with West Kentucky Gas to discuss
potential rate case and other PSC related
activities.
(8 hours)

Oct 22 Trip to Commission to retrieve
tariffs and other information.
(5 hours)

Total Consulting Hours 13.0

Out of Pocket Expense

Oct 20 Trip to Owensboro and return.
(350 miles @ \$.33 per mile) \$ 115.50

Total Expense \$ 115.50

Gonzales, Frances (temp)

From: Purcell, Jackie S.
Sent: Tuesday, February 09, 1999 4:32 PM
To: Gonzales, Frances (temp)
Subject: Rate case invoice coding

Hi, Frances,
I was just wondering if you have had a chance to take care of this yet!

Thanks, Jackie

=====

Frances,

I have some invoices that the coding needs to be changed on when you get a chance, please. All of these were coded to 8700 0 6111 09 000 5004000. **They should be changed to 1860 7 0021 09.**

<u>Vendor</u>	<u>Inv. Date</u>	<u>Amount</u>
Utility & Economic Consulting, Inc.	01/04/99	\$ 625.00
"	11/30/98	\$ 2016.50
"	11/02/98	\$1740.50
C.H. Guernsey & Company	12/29/98	\$2700.72
"	11/30/98	\$ 150.00

V# 53985
- 9028 - 11/20/98

I tried to get on the payables system and look up the information to try and make it easy for you, but the system is down.

Please advise me when you have made these changes.

Thanks for your help,

Jackie

**Utility and
Economic
Consulting, Inc.**

53925

November 30, 1998

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
P.O. Box 866
Owensboro, Kentucky 42302

RECEIVED
DEC 07 1998
ATMOS ENERGY
ACCOUNTS PAYABLE

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period November 1 through November 30, 1998.

	Total Hours	Hourly Rate	Total
Fees	16.0	\$125	\$ 2,000.00
Expenses			16.50
TOTAL AMOUNT DUE			\$ 2,016.50

Payment is due by December 31, 1998. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

Note
12/08/98
R#168815
\$2016.50

\$B 1860 70021 09 2/10/99 fj-j
~~87000 6111 09 000 500 4000~~ William Senter
12/4/98

UTILITY AND ECONOMIC CONSULTING, INC.

November 1 through November 30, 1998

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	16.0	\$125	\$ 2,000.00
Total Consulting Services	16.0		\$ 2,000.00

EXPENSES

Mileage			
	CDB	0 miles 33¢/mile	\$ 0
	JKS	50 miles 33¢/mile	16.50
Lodging (receipts attached)			0
Meals (receipts attached)			0
Federal Express (receipt attached)			0
Parking (receipt attached)			<u>0</u>
Total Expenses			\$ 16.50
TOTAL AMOUNT DUE			\$ 2,016.50

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement for Jim Sharpe

November 1 through November 30, 1998

Consulting Services

Nov 20 Reviewed Court decision and agreement
with Hopkinsville concerning franchise
tax.
(2 hours)

Nov 23 Trip to Commission to gather
information and work on putting
together a comparison with other
companies.
(8 hours)

Nov 24 Worked on tariff comparisons.
(6 hours)

TOTAL CONSULTING HOURS 16.0

Out of Pocket Expense

Nov 23 Trip to Frankfort and return.
(50 miles @ \$.33 per mile) \$ 16.50

TOTAL EXPENSE \$ 16.50

Gonzales, Frances (temp)

From: Purcell, Jackie S.
Sent: Tuesday, February 09, 1999 4:32 PM
To: Gonzales, Frances (temp)
Subject: Rate case invoice coding

Hi, Frances,
I was just wondering if you have had a chance to take care of this yet!

Thanks, Jackie

=====

Frances,

I have some invoices that the coding needs to be changed on when you get a chance, please. All of these were coded to 8700 0 6111 09 000 5004000. **They should be changed to 1860 7 0021 09.**

<u>Vendor</u>	<u>Inv. Date</u>	<u>Amount</u>
Utility & Economic Consulting, Inc.	01/04/99	\$ 625.00
"	11/30/98	\$ 2016.50
"	11/02/98	\$1740.50
C.H. Guemsey & Company	12/29/98	\$2700.72
"	11/30/98	\$ 150.00

Handwritten notes: ✓ #53985
- 9028 - 11/20/98

I tried to get on the payables system and look up the information to try and make it easy for you, but the system is down.

Please advise me when you have made these changes.

Thanks for your help,

Jackie

53985

**Utility and
Economic
Consulting, Inc.**

January 4, 1999

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
P.O. Box 866
Owensboro, Kentucky 42302

RECEIVED
JAN 11 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period December 1 through December 31, 1998.

	Total Hours	Hourly Rate	Total
Fees	5.0	\$125	\$ 625.00
Expenses			0
TOTAL AMOUNT DUE			\$ 625.00

Note:
1/7/99
TR# 1759114
\$ 625.00

Payment is due by January 31, 1999. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

5B 1860 7 0021 09, 2/10/99 Jg
\$625 8700 0 6111 0900 5004000
OK to pay, William J Senter Jr. 1/7/99

UTILITY AND ECONOMIC CONSULTING, INC.

December 1 through December 31, 1998

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	5.0	\$125	\$ 625.00
Total Consulting Services	5.0		\$ 625.00

EXPENSES

Mileage				
	CDB	0 miles	33¢/mile	\$ 0
	JKS	0 miles	33¢/mile	0
Lodging (receipts attached)				0
Meals (receipts attached)				0
Federal Express (receipt attached)				0
Parking (receipt attached)				0
Total Expenses				\$ 0
TOTAL AMOUNT DUE				\$ 625.00

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement for Jim Sharpe

December 1 through December 31, 1998

Consulting Services

Dec 17 Discussed regulation and alternatives for
filing in Kentucky.
(2 hours)

Dec 18 Reviewed information on CIAC and
discussed with PSC Staff.
(2 hours)

Dec 23 Continued to work on CIAC.
(1 hours)

TOTAL CONSULTING HOURS 5.0

Gonzales, Frances (temp)

From: Purcell, Jackie S.
Sent: Tuesday, February 09, 1999 4:32 PM
To: Gonzales, Frances (temp)
Subject: Rate case invoice coding

Hi, Frances,
I was just wondering if you have had a chance to take care of this yet!

Thanks, Jackie

=====

Frances,

I have some invoices that the coding needs to be changed on when you get a chance, please. All of these were coded to 8700 0 6111 09 000 5004000. **They should be changed to 1860 7 0021 09.**

<u>Vendor</u>	<u>Inv. Date</u>	<u>Amount</u>
Utility & Economic Consulting, Inc.	01/04/99	\$ 625.00
"	11/30/98	\$ 2016.50
"	11/02/98	\$1740.50 - 9028 - 11/20/98
C.H. Guernsey & Company	12/29/98	\$2700.72
"	11/30/98	\$ 150.00

I tried to get on the payables system and look up the information to try and make it easy for you, but the system is down.

Please advise me when you have made these changes.

Thanks for your help,

Jackie

53985

**Utility and
Economic
Consulting, Inc.**

March 1, 1999

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
P.O. Box 866
Owensboro, Kentucky 42302

RECEIVED
MAR 10 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period February 1 through February 28, 1999.

	Total Hours	Hourly Rate	Total
Fees	25.0	\$125	\$ 3,125.00
Expenses			181.33
TOTAL AMOUNT DUE			\$ 3,306.33

Payment is due by March 31, 1999. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

Note
4/10/99
CR# 189344
\$ 3306.33

William Senter
1860 7 0021 09

UTILITY AND ECONOMIC CONSULTING, INC.

February 1 through February 28, 1999

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	25.0	\$125	\$ 3,125.00
Total Consulting Services	25.0		\$ 3,125.00

EXPENSES

Mileage			
	CDB	0 miles 33¢/mile	\$ 0
	JKS	350 miles 33¢/mile	115.50
Lodging (receipts attached)			65.83
Meals (receipts attached)			0
Federal Express (receipt attached)			0
Parking (receipt attached)			<u>0</u>
Total Expenses			\$ 181.33
TOTAL AMOUNT DUE			\$ 3,306.33

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement for Jim Sharpe

February 1 through February 28, 1999

CONSULTING SERVICE

Feb 1	Discuss rate case filing with Mr. Senter. Gathered information. (1.0 hours)
Feb 2	Trip to Commission to get information on depreciaton and other information to forward to Bill. (2.0 hours)
Feb 8	Discuss depreciation and rate case. (1.0 hours)
Feb 25	Work with WKG on rate case and testimony. (8 hours)
Feb 26	Work with WKG on rate case and testimony. (8.0 hours)
Feb 27	Work with WKG on rate case and testimony. (5.0 hours)

TOTAL CONSULTING HOURS 25.0

Out of Pocket Expenses

Feb. 26	Trip to Owensboro and return. (350 miles @ \$.33 per mile)	\$ 115.50
Feb. 26	Overnight at Fairfield Inn	<u>65.83</u>
	Total Expenses	181.33



OWENSBORO FAIRFIELD INN
 800 SALEM DR.
 OWENSBORO KY. 42303
 (502) 688-8887

TOLL FREE RESERVATIONS (800) 228-2800

GUEST CHARGES SUMMARY

Thank you for choosing Fairfield Inn. We hope you enjoyed your stay. If you are not an INNsiders Club or Marriott Rewards™ member already, fill out an application today. For a \$10 one-time enrollment fee, you can start enjoying the benefits of INNsiders Club membership like Express Check-In, a free *USA Today* each weekday morning, personal check cashing privileges, and automatic membership in our exciting frequent guest program, Marriott Rewards. Or just join Marriott Rewards for free. Either way, you'll earn valuable points toward free vacations when you stay at any Fairfield Inn, or one of the other participating lodging brands in the Marriott family of hotels. Call 800-443-7396 to join.

Fairfield Inn Staff

GUEST NAME

JIM SHARPE

ROOM NUMBER NE-50154
 ROOM TYPE 409
 NO. OF GUESTS 00
 RATE 1
 CLERK 59.00
 308

ARRIVE

02/25/99

DEPART

02/26/99

DATE	DESCRIPTION	CHARGES	CREDITS
2-25-99	LONG DISTANCE #502-606-272-	1.41	
2-25-99	ROOM CHARGE - REGULAR	59.00	
2-25-99	ROOM TAX	3.65	
2-25-99	CITY OCC.	1.77	
2-26-99	VISA		65.83

** BALANCE ** .00

Fairfield Inn voted "Best Overall Value" in the 1995 Zagat's Hotel Survey

53985

**Utility and
Economic
Consulting, Inc.**

April 3, 1999

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
P.O. Box 866
Owensboro, Kentucky 42302

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period March 1 through March 31, 1999.

	Total Hours	Hourly Rate	Total
Fees	8.0	\$125	\$ 1,000.00
Expenses			16.50
TOTAL AMOUNT DUE			\$ 1,016.50

RECEIVED
APR 16 1999

Notes
#19/99
ck# 197895
\$1016.50

ATMOS ENERGY
ACCOUNTS PAYABLE

Payment is due by April 30, 1999. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

\$1016.50 1860 7 0021 09

William J. Senter Jr.

Utility and Economic Consulting, Inc. 181 N. Mill St., Suite 7, Lexington, Kentucky 40507 (606) 255-4850

Rec'd 4/14/99

UTILITY AND ECONOMIC CONSULTING, INC.

March 1 through March 31, 1999

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	8.0	\$125	\$ 1,000.00
Total Consulting Services	8.0		\$ 1,000.00

EXPENSES

Mileage			
	CDB	0 miles 33¢/mile	\$ 0
	JKS	50 miles 33¢/mile	16.50
Lodging (receipts attached)			0
Meals (receipts attached)			0
Federal Express (receipt attached)			0
Parking (receipt attached)			<u>0</u>
Total Expenses			\$ 16.50
TOTAL AMOUNT DUE			\$ 1,016.50

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement for Jim Sharpe

March 1 through March 31, 1999

CONSULTING SERVICE

Mar 1 Work on testimony,
 (3.0 hours)

Mar 9 Trip to Commission to review
 information on Columbia future test
 year and provide to Mr. Sentor.
 (3.0 hours)

Mar 24 Review regulations and discuss late
 payment with Mr. Sentor.
 (1.0 hours)

Mar 25 Discuss WNA and other proposed rates
 with Mr. Sentor.
 (1.0 hours)

TOTAL CONSULTING HOURS 8.0

Out of Pocket Expenses

Mar 9	Trip to Frankfort. (50 miles @ \$.33 per mile)	\$	16.50
	Total Expenses	\$	<u>16.50</u>

53985

**Utility and
Economic
Consulting, Inc.**

April 30, 1999

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
Owensboro, Kentucky 42303

RECEIVED
MAY 05 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period April 1 through April 30, 1999.

	Total Hours	Hourly Rate	Total
Fees	8.0	\$125	\$ 1,000.00
Expenses			16.50
TOTAL AMOUNT DUE			\$ 1,016.50

Payment is due by May 31, 1999. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

Note:
5/06/99
#201624
\$1016.50

William Senter Jr.
1860 7002109

Don't allow to

UTILITY AND ECONOMIC CONSULTING, INC.

April 1 through April 30, 1999

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	8.0	\$125	\$ 1,000.00
Total Consulting Services	8.0		\$ 1,000.00

EXPENSES

Mileage			
	CDB	0 miles 33¢/mile	\$ 0
	JKS	50 miles 33¢/mile	16.50
Lodging (receipts attached)			0
Meals (receipts attached)			0
Federal Express (receipt attached)			0
Parking (receipt attached)			<u>0</u>
Total Expenses			\$ 16.50
TOTAL AMOUNT DUE			\$ 1,016.50

12602

Utility and Economic Consulting, Inc.

June 1, 1999

Mr. Bill Senter
Vice President - Rates & Regulatory Affairs
Western Kentucky Gas Company
2401 New Hartford Road
Owensboro, Kentucky 42303

INVOICE

For consulting services provided by Utility and Economic Consulting, Inc. to Western Kentucky Gas Company for regulatory support and advice during the period May 1 through May 31, 1999.

	Total Hours	Hourly Rate	Total
Fees	33.0	\$125	\$ 4,125.00
Expenses			175.55
TOTAL AMOUNT DUE			\$ 4,300.55

RECEIVED
JUN 08 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

Payment is due by June 30, 1999. Please make check payable to Utility and Economic Consulting, Inc. and remit to:

Utility and Economic Consulting, Inc.
181 N. Mill St., Suite 7
Lexington, Kentucky 40507

WKG 10143 Refer
Consulting, Inc. WKG 2636

William J. Senter, Jr.
1860 14068 009000

Note:
7/8/99
305805
\$4300.55

UTILITY AND ECONOMIC CONSULTING, INC.

May 1 through May 31, 1999

Summary Statement

CONSULTING SERVICES

Name	Hours	Rate	Total
Chuck Buechel (CDB)	0.0	\$150	\$ 0
Jim Sharpe (JKS)	33.0	\$125	\$ 4,125.00
Total Consulting Services	33.0		\$ 4,125.00

EXPENSES

Mileage				
	CDB	0 miles	33¢/mile	\$ 0
	JKS	350 miles	33¢/mile	115.50
Lodging (receipts attached)				60.05
Meals (receipts attached)				0
Federal Express (receipt attached)				0
Parking (receipt attached)				<u>0</u>
Total Expenses				\$ 175.55
TOTAL AMOUNT DUE				\$ 4,300.55

UTILITY AND ECONOMIC CONSULTING, INC.

Billing Statement Jim Sharpe

May 1 through May 31, 1999

CONSULTING SERVICE

May 7	Review testimony. (7.0 hours)	
May 8	Review testimony and prepare for meeting. (5.0 hours)	
May 10	Meeting on rate case. (8.0 hours)	
May 11	Meeting on rate case. (8.0 hours)	
May 17	Reviewing and working on testimony. (3.0 hours)	
May 18	Reviewing testimony. (2.0 hours)	
	Total Consulting Hours	<u>33.0</u>

Out of Pocket Expenses

May 10	Trip to and return to Owensboro. (350 miles @ \$.33 per mile)	\$ 115.50
May 10	Hotel	<u>\$ 60.05</u>
	Total Expenses	\$ 175.55

Executive Inn Rivermont

One Executive Boulevard
Owensboro, Kentucky 42301
1-502-926-8000
Call Toll Free For Reservations
1-800-626-1936

EXECUTIVE INN - RIVERMONT EXECUTIVE BLVD OWENBORO, KY 42301 (2) 926-8000		ROOM NUMBER	GUEST NUMBER	
		ARRIVAL DATE	DEPARTURE DATE	
NIGHTS	GUEST PLAN	NO. IN PARTY	UNIT TYPE	
RATE		TAX		TOTAL
METHOD OF PAYMENT		GUEST CARD NUMBER	BEAT *****	
CLERK				

10/19/98 2548 775245 1
10/20/98 10/20/98



VANDERBILT
INGTON, KENTUCKY 40571
THE STATES OF AMERICA

DISCOVER CARD 6011006991502528

TRACYH CALL: 220

10/20/98

CHECKOUT TIME: 06:30

PAGE: 1

TRANSACTION	REFERENCE	CHARGES	CREDITS	BALANCE
19 ROOM CHARGE	RM 2548 SHARPE	55.00		
19 STATE SALES TAX	RM 2548 SHARPE	3.40		
19 OCCUPANCY TAX	RM 2548 SHARPE	1.65		
20 DISCOVER CARD	6011006991502528		60.05	
GUEST BALANCE				\$ 0.00

FOR YOUR NEXT RESERVATION DIRECT AT [HTTP://WWW.CHMS.NET](http://WWW.CHMS.NET)

James K. Sharpe
GUEST SIGNATURE

The Law Firm of
SHEFFER HUTCHINSON KINNEY
115 East Second Street
Owensboro, Kentucky 42303
(502)-684-3700

Tax I.D. No. 61-1023845

Please mail all payments to the above address.

Atmos Energy Corporation
P.O. Box 650205
Dallas TX 75265

Page: 1
02/28/99
ACCOUNT NO: 2609-0003K
STATEMENT NO: 37

ATTN: Mr. Glen Blanscet

Public Service Commission Matters

Atmos Energy Corporation

Page: 2

02/28/99

ACCOUNT NO: 2609-0003K
STATEMENT NO: 37

Public Service Commission Matters

02/02/99

MRH Extensive telephone conference with Bill Senter
concerning rate case update

.75

93.75 *A*

02/03/99

MRH Telephone conference with Lee Everett concerning
potential case issues

.40

50.00 *fat*

Atmos Energy Corporation

Public Service Commission Matters

Page: 3

02/28/95

ACCOUNT NO: 2609-0003K

STATEMENT NO: 37

HOURS

02/09/99

MRH Telephone conference with Bill Senter concerning
rate case

.25

31.25 *flat*

MRH Conference with Bill Senter concerning rate case

.33

41.25 *flat*
(20)

Atmos Energy Corporation

Page: 4

02/28/99

ACCOUNT NO: 2609-0003K
STATEMENT NO: 37

Public Service Commission Matters

	HOURS	
MRH Telephone conference with Doug Walther concerning rate case	.20	25.00 <i>PC</i>
02/16/99		
JAH Telephone call with RH re: rate case; review case schedule	.25	46.25 <i>PC</i>
MRH Telephone conference with Jack Hughes concerning sample meter filing and rate case	.25	31.25 <i>PC</i>
02/17/99		
JAH Review case files re: future test year applications	3.50	647.50 <i>PC</i>
02/24/99		
MRH Telephone conference with Bill Senter concerning rate case	.25	31.25 <i>PC</i>

Atmos Energy Corporation

Page: 5

02/28/99

ACCOUNT NO: 2609-0003K
STATEMENT NO: 37

Public Service Commission Matters

02/25/99

HOURS

JAH Telephone call with BS re: rate case preparation

.17

31.45 ✓

MRH To review of background material regarding rate adjustment application using a forcasted test period; review of regs concerning notice of intent; work on first draft of notice of intent; telephone conference with Bill Senter

3.00

375.00 ✓

02/26/99

JAH Research PSC regulations re: rate case notice

.25

46.25 - ✓

MRH Preparation of revisions of letter to Bob Hazelrigg; telephone conference with Bill Senter; telephone conference with Jack Hughes; preparation of revisions to notice of intent for overnight filing with the Public Service Commission

50

62.50 ✓

5-099

The Law Firm of
SHEFFER HUTCHINSON KINNEY
115 East Second Street
Owensboro, Kentucky 42303
(502)-684-3700

Tax I.D. No. 61-1023845

Please mail all payments to the above address.

Atmos Energy Corporation
P.O. Box 650205
Dallas TX 75265

ATTN: Mr. Glen Blanscet

Page: 1
03/31/99

ACCOUNT NO: 2609-0016K
STATEMENT NO: 1

*The bill
marked rate case
goes into the deferred account*

1999 Rate Case

*this entire bill
goes into the
deferred account*

		HOURS	
03/01/99	JAH Telephone call with RH re: notice of intent	.20	30.00 <i>paid</i>
03/02/99	MRH Telephone conference with Doug Walther	.25	31.25 <i>paid</i>
03/08/99	MRH Telephone conferences with Bill Senter, Jack Hughes concerning scheduling of conference	.75	93.75 <i>paid</i>
	MRH Review of experimental rate case filing by Delta	1.50	187.50 <i>paid</i>
03/12/99	JAH Conference with RH; DW; BS re: rate case preparation 99-070	7.75	1,162.50 <i>paid</i>
	MRH To round trip travel to Louisville and all day work with Jack Hughes, Doug Walther, Bill Senter concerning rate case	9.00	1,125.00 <i>paid</i>
03/19/99	JAH Review Case 95-010 testimony, exhibits, etc. to prepare for 3/22 conference 99-070	3.50	525.00 <i>paid</i>
03/22/99	MRH Review of file in preparation for conference; conference at WKG concerning rate case	7.50	937.50
	JAH Conference re: rate case preparation 99-070	6.50	975.00

J

Atmos Energy Corporation

Page: 2
03/31/99

ACCOUNT NO: 2609-0016K
STATEMENT NO: 1

1999 Rate Case

	HOURS	
03/23/99		
MRH Continued conference at WKG on rate case	6.50	812.50
JAH Conference re: rate case preparation 99-070	10.25	1,537.50
03/25/99		
MRH Telephone conference with Richard Raft, counsel for PSC	.25	31.25
03/27/99		
MRH Telephone conference with Doug Walther and with Jack Hughes concerning rate case	.40	50.00
MRH Receipt, review and initial consideration of testimony of Charles Goodman and Tristan West in Louisiana PSC	1.00	125.00
03/29/99		
JAH Review Case 95-010 for public notice format 99-070	1.80	270.00
JAH Draft filing requirement schedules 99-070	1.25	187.50
03/30/99		
JAH Staff conference re: use of short form notice for rate case 99-070	.30	45.00
03/31/99		
MRH Telephone conferences with Jack Hughes, Bill Senter and Smitty Taylor concerning rate case; review of publication in prior filing	.75	93.75
FOR PROFESSIONAL SERVICES RENDERED	59.45	8,220.00

RECAPITULATION

ATTORNEY	Title	HOURS	HOURLY RATE	TOTAL
Hutchinson/Partner	Partner	27.90	\$125.00	\$3,487.50
Jack Hughes/ Partner	Partner	31.55	150.00	4,732.50

03/05/99 Owensboro office - Postage 1.65

Atmos Energy Corporation

Page: 3

03/31/99

ACCOUNT NO: 2609-0016K
STATEMENT NO: 1

1999 Rate Case

03/25/99 Owensboro office - Copies at \$.20	3.60

TOTAL EXPENSES	5.25
03/12/99 Mileage from Frankfort to Louisville and return for conference; parking fee 99-070	45.90
03/23/99 Mileage from Frankfort to Owensboro and return, hotel for conference	159.40

TOTAL ADVANCES	205.30
TOTAL CURRENT WORK	8,430.55
BALANCE DUE	\$8,430.55

\$8,430.55

Amount	ACCOUNT (18)				CENTER (12)			Prog Code (10)	
	ACC 1-4	X 5	Elem 10-9	Detail 10-18	Op 1-2	Item 3-5	Resp Ctr 6-12	Item 1-3	Approp 4-10
8430.55	1860		70021		09	000	0052000		
DATE 5-10-99	APPROVED <i>[Signature]</i>				AUDITED				

Statement reflects payments received
through March 31, 1999
(Please include account number on payment)



Jul-28-99 16:26 From-

CG
S-12-4

The Law Firm of
SHEPPER HUTCHINSON KINNEY
115 East Second Street
Owensboro, Kentucky 42303
(502)-684-3700

Tax I.D. No. 61-1023845

Please mail all payments to the above address.

Atmos Energy Corporation
P.O. Box 650205
Dallas TX 75265

Page: 1
04/30/99
ACCOUNT NO: 2609-0016K
STATEMENT NO: 2

ATTN: Doug Walther

1999 Rate Case

*This all goes into the
deferred account for the rate case*

		HOURS	
4/05/99	JAH Review draft abbreviated notice; telephone call with Bill Senter 99-070	.20	30.00
4/07/99	JAH Draft rate application 99-070	2.75	412.50
9/99	JAH Telephone call with Bill Senter re rate conference 99-070	.10	15.00
/14/99	MRH Receipt and review of correspondence from Bill Senter concerning non-recurring charges/premises charge issue; review of regs and consideration of same; telephone conferences with Jack Hughes and with Bill Senter	1.00	125.00
	JAH Telephone conference with Randy Hutchinson re premises charge for rate case; letter to PSC re abbreviated notice/file PSC 99-070	.75	112.50
/16/99	MRH Telephone conference with Doug Walther concerning rate case filing requirement	.20	25.00
19/99	MRH Review of proposed prefiled testimony of Conrad Gruber, Earl Fischer and others	2.50	312.50
	JAH Telephone call with Doug Walther re case preparation 99-070	.10	15.00

Atmos Energy Corporation

1999 Rate Case

Page: 3
 04/30/99
 ACCOUNT NO: 2609-0016K
 STATEMENT NO: 2

TOTAL EXPENSES	-----	4.29
04/21/99 Mileage to Owensboro @ \$.32 a mile		106.24
TOTAL ADVANCES	-----	106.24
TOTAL CURRENT WORK		<u>5,676.78</u>
PREVIOUS BALANCE		8,430.55
BALANCE DUE		\$14,107.33
		=====

PAST DUE AMOUNTS					
0-30	31-60	61-90	91-120	121-180	181+
-----	-----	-----	-----	-----	-----
14,107.33	0.00	0.00	0.00	0.00	0.00

Amount	ACCOUNT (18)				CENTER (12)			Proj. Code (10)	
	Acct 1-4	X 5	Elem 6-9	Detail 10-18	Dv 1-2	Fun 3-5	Resp Ctr 6-12	Fun 1-3	Approp. 4-10
5676.78	1860		70021		09	000	2052022		
Date: 5-12-99	Approved: <i>[Signature]</i>				Audited:				

Statement reflects payments received through April 30, 1999
 (Please include account number on payment)

+

LAW OFFICES
WARD & ANDERSON, P.C.
SUITE 503
1000 THOMAS JEFFERSON STREET, N.W.
WASHINGTON, D.C. 20007

(202) 298-6910
TELECOPIER (202) 298-6914

March 3, 1999

RECEIVED

MAY 07 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

ATMOS Energy Corporation
Post Office Box 650205
Dallas, Texas 75265-0205

14952

Attention: Doug Walther, Attorney

To professional services rendered during February 1999:

WESTERN KENTUCKY GAS COMPANY

Re: CP98-0645

0.50 hours at \$220 \$ 110.00

A.W.Anderson @ \$220 Review data responses and order.

Re: Miscellaneous

1.25 hours at \$240 \$ 300.00

1.25 hours at \$220 \$ 275.00

D.B.Ward @ \$240 Conference D.Walther re procedures;
review material re LDC unbundling.

A.W.Anderson @ \$220 Monitor FERC orders and notices and
transmit relevant orders and notices to
D.Walther; phones D.Walther.

Re: PL99-0001

0.25 hours at \$240 \$ 60.00

0.50 hours at \$220 \$ 110.00

D.B.Ward @ \$240 Obtain and fax material to D.Walther.

A.W.Anderson @ \$220 Review notice; phone D.Walther.

Note.

(Continued on next page)

ATMOS Energy Corporation
March 3, 1999
Page 2

Re: RM98-0010

1.25 hours at \$240	\$	300.00
1.50 hours at \$220	\$	330.00

D.B.Ward @ \$240 Review comments re Reliant P.L. issue.

A.W.Anderson @ \$220 Review comments; review order re waiver of shipper title; letter J.Hack.

Re: RM98-0012

0.50 hours at \$220	\$	110.00
---------------------	----	--------

A.W.Anderson @ \$220 Review comments and report.

Re: RP91-0203

1.00 hours at \$220	\$	220.00
---------------------	----	--------

A.W.Anderson @ \$220 Obtain and review court decision.

Re: RP95-0064

0.50 hours at \$240	\$	120.00
---------------------	----	--------

D.B.Ward @ \$240 Review settlement; conf. A.Anderson.

Re: RP95-0112

0.25 hours at \$240	\$	60.00
0.75 hours at \$220	\$	165.00

D.B.Ward @ \$240 Review reply comments re settlement.

A.W.Anderson @ \$220 Review reply comments re settlement.

Re: RP97-0344

0.25 hours at \$220	\$	55.00
---------------------	----	-------

A.W.Anderson @ \$220 Review notice.

Re: RP98-0014

1.50 hours at \$220	\$	330.00
---------------------	----	--------

A.W.Anderson @ \$220 Review settlement agreement and other docs.; phone D.Walther.

(Continued on next page)

Re: RP98-0140

0.25 hours at \$220 55.00

A.W.Anderson @ \$220 Review compliance filing.

Re: RP98-0206

0.25 hours at \$220 \$ 55.00

A.W.Anderson @ \$220 Review draft order.

Re: RP99-0167

0.25 hours at \$220 \$ 55.00

A.W.Anderson @ \$220 Review draft order.

Re: RP99-0209

0.25 hours at \$220 \$ 55.00

A.W.Anderson @ \$220 Review new cash-out report.

Re: RP99-0214

0.50 hours at \$240 \$ 120.00
1.75 hours at \$220 385.00

D.B.Ward @ \$240 Review TXGT cash-out report; conf.
A.Anderson.

A.W.Anderson @ \$220 Review cash-out report; conf. D.Ward;
phone D.Walther; draft and file motion to
intervene.

Re: Y2K

1.50 hours at \$220 330.00

A.W.Anderson @ \$220 Attend conference at FERC; memo
D.Walther.

\$ 3,600.00

(Continued on next page)

Expenses:

Telephone	\$	5.70
Telecopy		2.50
Copying		80.80
Postage		16.28
Local Transp.		20.00
Office Supplies		4.41
Couriers		23.38
FERC Docs.		4.76

\$ 157.83

TOTAL

\$ 3,757.83

PW

Note:
 5/7/99
 CR# 201812
 \$3,757.83

Amount	ACCTJNT (18)				CENTER (12)			Proj. Code (10)	
	Acc: 1-2	X 5	Elem 6-9	Detail 10-18	Dv 1-2	Twn 3-5	Resp Ctr 6-12	Twn 1-3	Approp. 4-10
3,757.83	18607		0021		09	000	0052000		
Date: 3/25/99	Approval: <i>[Signature]</i>				Audited:				





THE ANDERSON NEWS
PO BOX 116
LAWRENCEBURG, KY 40342-0116

JUNE 1999

WESTERN KY GAS CO

15541

23	NET AMOUNT DUE	31	TERMS OF PAYMENT		
	1137.78		PAYMENT DUE BY 7/30		
21	CURRENT NET AMOUNT DUE	22	30 DAYS	60 DAYS	OVER 90 DAYS
	1137.78		.00	.00	.00

ADVERTISING INVOICE and STATEMENT

BILLED ACCOUNT NAME AND ADDRESS

REMITTANCE ADDRESS

WESTERN KY GAS CO
ATTCS PAYABLE
2401 NEW HARTFORD RD
OWENSBORO KY 42909-1912

THE ANDERSON NEWS
LANDMARK COMM. NEWSPAPERS
PO BOX 1118
SHELBYVILLE, KY 40066-1118

4	PAGE #	5	BILLING DATE	6	BILLED ACCOUNT NUMBER	7	ADVERTISER/CLIENT NUMBER
	1		6/30/1999		003-787663		

Change of Address?
 Note changes on reverse.

AMOUNT PAID \$ _____

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

TO AVOID DELAYS IN CREDITING YOUR ACCOUNT, PLEASE RETURN THE REMITTANCE STUB WITH YOUR PAYMENT IN THE SUPPLIED ENVELOPE OR PRINT THE ACCOUNT NUMBER FROM THIS BILL ON YOUR CHECK.

10	DATE	11	REF	12	13	14	DESCRIPTION-OTHER COMMENTS/CHARGES	15	16	17	18	19	GROSS AMOUNT	20	DISC.	21	NET AMOUNT
								SAU SIZE BILLED UNITS		TIMES RUN RATE							
	6/09						PREVIOUS BALANCE						379.00				379.00
	6/16						1999 RATE CASE FILING	3X21.50		5.88		379.26		.00		379.26	
	6/23						1999 RATE CASE FILING	3X21.50		5.88		379.26		.00		379.26	
							1999 RATE CASE FILING	3X21.50		5.88		379.26		.00		379.26	
							TOTAL ANDERSON NEWS					1137.78		.00		1137.78	

WKG 10143

TASK DEFER

Marc

7/8/99

WKG 2636

Note:
7/14/99
CR# 306879
#1137.78

RECEIVED
JUL 09 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

TOTAL DUE

1137.78

.00

1137.78

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS IF TOTAL PAYMENT IS NOT RECEIVED BY DUE DATE, A SERVICE CHARGE OF 1.5% PER MONTH (18% ANNUAL PERCENTAGE RATE) WILL BE IMPOSED

21	CURRENT NET AMOUNT DUE	22	30 DAYS	40 DAYS	OVER 90 DAYS	23	GROSS AMOUNT DUE	24	NET AMOUNT DUE
	1137.78		.00	.00	.00		1137.78		1137.78

FOR BILLING QUESTIONS:

THE ANDERSON NEWS, PO BOX 116, LAWRENCEBURG, KY 40342
502-839-6906

SAL™

25	26	BILLING PERIOD	27	BILLED ACCOUNT NUMBER	28	ADVERTISER INFORMATION	29	ADVERTISER/CLIENT NAME
		JUNE 1999		003-787663		WESTERN KY GAS CO		WESTERN KY GAS CO
30	31	YEAR TO DATE DOLLARS	32	CONTRACT EXPIRATION	33	CONTRACT REQUIREMENTS	34	CONTRACT CURRENT MONTH
		1137.78						CONTRACT CUMULATIVE

330 S. FOURTH STREET • DANVILLE, KY • (606) 236-2551

1,544.13	Net 30 days		
1,544.13	.00	.00	.00

1	06/30/99	WESTERN KENTUCKY GAS PO BOX 640 DANVILLE KY 40423-0640
---	----------	--

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

DATE	DESCRIPTION	AMOUNT	REMARKS	TOTAL
5/31	BALANCE FORWARD			0.00
	PUBLICATION: THE ADVOCATE-MESSENGER			
	AD CLASS: Legal ROP			
6/03	LEGAL AD	3x21.51	1	514.71
		64.51	7.98	
6/10	ATTN: GIL MORRISON	3x21.51	1	514.71
		64.51	7.98	
6/17	GIL MORRISON-LEGAL	3x21.51	1	514.71
		64.51	7.98	
	Ad Class Totals:	\$1,544.13	193.500 inch	
	Publication Totals:	\$1,544.13		

\$ 1544.13 WKC 10143 Task DEFER Misc 2737

7/12/99

RECEIVED
JUL 14 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

William Perry
7/16/99
CR# 301522
\$1544.13

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS **SBI**

1,544.13	.00	.00	.00	1,544.13
----------	-----	-----	-----	----------

THE ADVOCATE-MESSENGER P.O. Box 149
330 S. FOURTH STREET
DANVILLE, KY 40423-0149
(606) 236-2551 or 1-800-428-0409

* UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE

47490	06/01/99 - 06/30/99	1151	WESTERN KENTUCKY GAS
-------	---------------------	------	----------------------



CENTRAL KY NEWS-JOURNAL
 PO BOX 1138
 CAMPBELLSVILLE, KY 42719-1138

JUNE 1999 WESTERN KY GAS

15522

21	NET AMOUNT DUE	31	TERMS OF PAYMENT
211	CURRENT NET AMOUNT DUE	32	30 DAYS
212	CURRENT NET AMOUNT DUE	33	60 DAYS
213	CURRENT NET AMOUNT DUE	34	OVER 90 DAYS

1040.04 PAYMENT DUE BY 7/30

1040.04 .00 .00 .00

ADVERTISING INVOICE and STATEMENT

BILLED ACCOUNT NAME AND ADDRESS

REMITTANCE ADDRESS

WESTERN KY GAS
 ATTN MARIAM
 2401 NEW HARTFORD RD
 OWENSBORO KY 42303-1312

CENTRAL KY NEWS JOURNAL
 LANDMARK COMM. NEWSPAPERS
 PO BOX 1118
 SHELBYVILLE, KY 40066-1118

41	PAGE #	51	BILLING DATE	61	BILLED ACCOUNT NUMBER	71	ADVERTISER/CLIENT NUMBER
1		6/30/1999	085-910600				

Change of Address?
 Note changes on reverse.

AMOUNT PAID \$

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

TO AVOID DELAYS IN CREDITING YOUR ACCOUNT, PLEASE RETURN THE REMITTANCE STUB WITH YOUR PAYMENT IN THE SUPPLIED ENVELOPE OR PRINT THE ACCOUNT NUMBER FROM THIS BILL ON YOUR CHECK.

10	DATE	11	REF.	12	13	14	DESCRIPTION-OTHER COMMENTS/CHARGES	15	SALE SIZE BILLED UNITS	16	TIMES RUN RATE	19	GROSS AMOUNT	DISC.	20	NET AMOUNT
	6/29						PREVIOUS BALANCE						520.02			520.02
	6/07						PAYMENT CK #301888						520.02			520.02
	6/14						LEGAL ADVERTISING	6X13.50		6.73			545.13	L 25.11		520.02
							LEGAL ADVERTISING	6X13.50		6.73			545.13	L 25.11		520.02
							TOTAL CENTRAL KY NEWS JOURNAL						1090.26	50.22		1040.04

WKG 10/14/3 DEFER 7/18/99 WKG. 2636
 William J. Senter Jr.

Note:
 7/14/99
 CR# 206911
 #1040.04

RECEIVED
 JUL 09 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

TEARSHEETS TO FOLLOW IN SEPARATE MAILING FROM LOCAL PAPER
 TOTAL DUE 1090.26 50.22 1040.04

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS IF TOTAL PAYMENT IS NOT RECEIVED BY DUE DATE, A SERVICE CHARGE OF 1.5% PER MONTH (18% ANNUAL PERCENTAGE RATE) WILL BE IMPOSED

211	CURRENT NET AMOUNT DUE	221	30 DAYS	231	60 DAYS	241	OVER 90 DAYS	251	GROSS AMOUNT DUE	261	NET AMOUNT DUE
	1040.04		.00		.00		.00		1040.04		1040.04

FOR BILLING QUESTIONS:

CENTRAL KY NEWS JOURNAL, PO BOX 1138, CAMPBELLSVILLE, KY 42719-1138, 270-465-8111

S&I™

251	BILLING PERIOD	41	BILLED ACCOUNT NUMBER	71	ADVERTISER/CLIENT NUMBER	21	ADVERTISER/CLIENT NAME
	JUNE 1999		085-910600				WESTERN KY GAS
252	YEAR TO DATE DOLLARS	253	CONTRACT EXPIRATION	254	CONTRACT REQUIREMENTS	255	CONTRACT CURRENT MONTH
	1847.88						

LANDMARK COMMUNITY NEWSPAPERS INC. • P.O. BOX 549 • SHELBYVILLE, KY 40066-0549 • 502/633-4334

DAILY NEWS

P.O. BOX 90012
BOWLING GREEN, KENTUCKY 42102-9012
502 - 781-1700

3	DOCUMENT NO.	4	BILLING DATE	5	BILLING PERIOD	6	TERMS OF PAYMENT
	1		6/30/99		JUNE		TERMS: NET 30 DAYS, A SERVICE CHARGE OF 1 1/2% PER MONTH WILL BE APPLIED TO UNPAID BALANCES 30 DAYS OR OVER, REPRESENTING AN ANNUAL PERCENTAGE OF 18%.

PUBLISHED BY NEWS PUBLISHING CO. - FEDERAL I.D. NO. 61-0846257

712 BILLED ACCOUNT
WESTERN KY GAS COMPANY
C/O JERRY HARMON
P.O. BOX 598
BOWLING GREEN KY 42101

7	BILLED/ACCOUNT NO.	8	ADVERTISER/CLIENT
	4096-04		4096-04
9	NAME OF ADVERTISER/CLIENT		

26	BILLED/ACCOUNT NO.	155745
27	BILLED/ACCOUNT NAME	4096-04
28	REMIT TO	WESTERN KY GAS COMPANY
		DAILY NEWS P.O. BOX 90012 BOWLING GREEN, KY 42102-9012

DATE	REFERENCE CODE	CHARGE OR CREDIT DESCRIPTION/PRODUCT CODE	BILLED UNITS	RATE	GROSS AMOUNT	NET AMOUNT
6/02	3050 R	BALANCE FORWARD			.00	
6/09	3050 R	RATE CASE FILING	63.00	11.49	723.87	723.87
6/16	3050 R	1999 RATE CASE FILING	63.00	11.49	723.87	723.87

Notes:
7/14/99
1 P.H. 306935
P. 2/17.61

WKS 10/43 TAKE DEFER
7/8/99 WKS 2134

RECEIVED
JUL 09 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

DATE	REFERENCE CODE	AMOUNT
6/02	BAL FWD	.00
6/09	3050 R	723.87
6/16	3050 R	723.87

REFERENCE CODES	AGING OF PAST DUE AMOUNTS	TOTAL AMOUNT DUE	CURRENT GROSS AMOUNT	CURRENT NET AMOUNT
24	30 DAYS		2,171.61	2,171.61
25	60 DAYS			
26	90 DAYS			
27	CONTRACT PERFORMANCE			
28	CONTRACT PERFORMANCE			
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100	CONTRACT PERFORMANCE			

PLEASE DETACH AND RETURN WITH REMITTANCE

AMOUNT: 2,171.61

THANK YOU

DAILY NEWS
P.O. BOX 90012
BOWLING GREEN, KENTUCKY 42102-9012
502 - 781-1700

16024

GLASGOW DAILY TIMES
P.O. BOX 1179
GLASGOW, KENTUCKY 42142-1179
PHONE (502)678-5171 FAX (502)678-5052

WESTERN KY. GAS

NON

P. O. BOX 338

GLASGOW KY 42142 0338

DUE UPON RECEIPT

DATE	TOTAL BALANCE DUE
6/30/99	2,547.75
ACCOUNT NUMBER	AMOUNT PAID
10753	

DT

DETACH & RETURN THIS PORTION WITH PAYMENT

DATE	DESCRIPTION	CLASS	RATE	INCHES	LINES	TIMES	AMOUNT
06/03/99	LEGAL AD CLASSIFIED GAS TARIFFS		7.900	107.50			849.25
06/10/99	LEGAL AD CLASSIFIED GAS TARIFFS		7.900	107.50			849.25
06/17/99	LEGAL AD CLASSIFIED GAS TARIFFS		7.900	107.50			849.25

2547.75 WK 10143 DEFER *Muc* 2735
William Santa 7/12/99

Note:
7/16/99
CR# 301589
\$2547.75

RECEIVED

JUL 14 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

GLASGOW DAILY TIMES			322.50	2,547.75
P.O. BOX 1179 GLASGOW, KY 42142-1179			TOTAL INCHES	TOTAL LINES
PAST DUE			CURRENT CHARGES	
0.00	0.00	0.00	PAST DUE BALANCE FROM PREVIOUS MONTHS	
OVER 90 DAYS	60 DAYS	30 DAYS	PAY THIS AMOUNT	
10753 WESTERN KY. GAS			2,547.75	

PLEASE SHOW ACCOUNT NUMBER ON CHECK

Kentucky New Era.

INCORPORATED

Published Daily Except Sunday
 P.O. BOX 729 - HOPKINSVILLE, KY. 42241
 MAIN OFFICE 502/886-4444 • FAX 502/887-3222

WESTERN KENTUCKY GAS CO
 2401 NEW HARTFORD ROAD
 P O BOX 866
 OWENSBORO, KENTUCKY 42303

15557

ACCOUNT NUMBER	DATE	INVOICES STATEMENT NUMBER
1423	06/30/99	764

PAID OPTIONS

I AUTHORIZE YOU TO CHARGE MY

VISA  MC 

TOTAL

ACCT#

EXP DATE

SIGNATURE _____ DATE _____

TRANS/POSTING DATE	TRANSACTION DESCRIPTION	INCHES	LINES	RATE	CHARGES	CREDITS
06/02	TARIFF CHANGES	189	00	6.170	1166.13	
06/11	TARIFF CHANGES	189	00	6.170	1166.13	
06/17	TARIFF CHANGES	189	00	6.170	1166.13	
<p><i>WKG 10/13 PETER ADD WKG</i></p> <p><i>William J. Smith 7/1/99</i></p>		<p>RECEIVED</p> <p>JUL 09 1999</p> <p>ATMOS ENERGY ACCOUNTS PAYABLE</p>				
TOTALS				567.00	0	

PLEASE REMIT PAYMENT BY THE 10TH OF EACH MONTH. IF YOU HAVE ANY QUESTIONS REGARDING YOUR BILL, CONTACT KRIST AT 270-887-3254. THANK YOU FOR YOUR BUSINESS!

PREVIOUS BALANCE	PAYMENTS/CREDITS	AMOUNT SUBJECT TO FINANCE CHARGE	SERVICE CHARGE	NEW CHARGES	TOTAL AMOUNT DUE
.00	.00	.00	.00	3498.39	3,498.39

ACCOUNT STATUS				
CURRENT	30 DAYS	60 DAYS	90 DAYS & OVER	
78.39	.00	.00	.00	

CHARGES AND PAYMENTS MADE AFTER THE LAST DAY OF THE STATEMENT MONTH WILL BE REFLECTED ON YOUR NEXT STATEMENT. A 1 1/2% FINANCE CHARGE WILL BE ADDED EACH MONTH TO BALANCES DUE OVER 30 DAYS. AN ANNUAL RATE OF 18% (A MINIMUM CHARGE OF 50¢).

REMITTANCE COPY

P.O. Box 529, Madisonville, Kentucky 42431
 TEL: (502) 824-3300 FAX: (502) 821-6855
 FED ID#: 51-0266566

06/01/99 - 06/30/99

WESTERN KENTUCKY GAS CO. 142

23 TOTAL AMOUNT DUE		*UNAPPLIED AMOUNT		TERMS OF PAYMENT	
2126.25				AMOUNT DUE BY 07/31/99	
21 CURRENT NET AMOUNT DUE	22 30 DAYS	60 DAYS		OVER 90 DAYS	
2126.25	0.00	0.00		0.00	

ADVERTISING
INVOICE and STATEMENT

1 PAGE #	2 BILLING DATE	3 BILLED ACCOUNT NAME AND ADDRESS			4 REMITTANCE ADDRESS
	06/30/99	WESTERN KENTUCKY GAS CO. 2401 New Hartford Road Attn: Tom Higdon/Roger Gann OWENSBORO, KY 423020866			The Messenger 221 S. Main Street P.O. Box 529 Madisonville KY 42431-0529
5 BILLED ACCOUNT NUMBER	001336				
6 ADVERTISER/CLIENT NUMBER					

Payment due by 07/31/99.

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

7 DATE	8 NEWSPAPER REFERENCE	9 DESCRIPTION-OTHER COMMENTS/CHARGES	15 SAU SIZE BILLED UNITS	17 TIMES RUN RATE	19 GROSS AMOUNT	20 NET AMOUNT
06/01/99	04529927001	Beginning Balance				55.55
	SYC51327000	Payment				-55.00
06/02/99 ✓	04534439001	Credit				-0.55
06/09/99 ✓	04534440001	6x10.5-notice	6.00 x	1	708.75	
06/16/99 ✓	04534441001	6x10.5-notice	63.00	11.25 /in	708.75	
			6.00 x	1	708.75	
			63.00	11.25 /in	708.75	
			6.00 x	1	708.75	
			63.00	11.25 /in	708.75	

WKC 10143 ^{Task} DEFER
William Hunter Jr

2636
RECEIVED
 JUL 16 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Note:
 7/21/99
 CR# 308769
 \$ 2126.25

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS

25 CURRENT NET AMOUNT DUE	22 30 DAYS	60 DAYS	OVER 90 DAYS	*UNAPPLIED AMOUNT	23 TOTAL AMOUNT DUE
2126.25	0.00	0.00	0.00		2126.25

The Messenger

P.O. Box 529, Madisonville, Kentucky 42431
 TEL: (502) 824-3300 • FAX: (502) 821-6855 • FED ID#: 51-0266566

*UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE

25 BILLING PERIOD	6 BILLED ACCOUNT NUMBER	7 ADVERTISER/CLIENT NUMBER	8 ADVERTISER/CLIENT NAME
06/01/99 - 06/30/99	001336		WESTERN KENTUCKY GAS

News-Democrat & LEADER

165JL

(502) 726-8394 • FAX (502) 726-8398
 P.O. Box 270 • 120 Public Square • Russellville, KY 42276

ACCOUNT NAME

WESTERN KY GAS CO
 JERRY HARMON
 PO BOX 598
 BOWLING GREEN, KY 42101

ACCOUNT NO. 3912	INV/STMT. DATE 06/30/99	INVOICE/STMT. NO. 223
BILLING PERIOD JUNE 1999		PAYMENT TERMS NET 30 DAYS

1. News Democrat & Leader
2. The Logan Advertiser

ADVERTISER CLIENT NAME

WESTERN KY GAS CO

TRANS. DATE	PUB	TRANS. CODE	CHARGE OR CREDIT DESCRIPTION / PRODUCT CODE	SAU / DIMENSIONS	BILLED UNITS	RATE	GROSS AMOUNT	NET AMOUNT
06/04	1	ROP	NOTICE	6X 11.00	66.00	4.900	323.40	323.40
06/11	1	ROP	NOTICE	6X 11.00	66.00	4.900	323.40	323.40
<p>646.80 WKGB 10143</p> <p><i>Task DEFER Misc 2734</i></p> <p><i>7/12/99</i></p> <p><i>RECEIVED</i></p> <p><i>JUL 14 1999</i></p> <p><i>ATMOS ENERGY ACCOUNTS PAYABLE</i></p> <p><i>Note: 7/16/99</i></p> <p><i>CR# 301638</i></p> <p><i>#14.80</i></p>								

PREVIOUS BALANCE	PAYMENTS/CREDITS	PAID SUB TO SERVICE CHG.	SERVICE CHARGE	CURRENT GROSS AMT.	CURRENT NET AMOUNT
.00	.00	.00	.00	646.80	646.80

CASH DISCOUNTS	ACCOUNT STATUS				TOTAL NET AMOUNT
.00	0-30 DAYS	31-60 DAYS	61-90 DAYS	OVER 90 DAYS	▽ DUE ▽
	646.80	.00	.00	.00	646.80

THIS ACCOUNT IS DUE AND PAYABLE 30 DAYS FROM DATE OF INVOICE. A SERVICE CHARGE OF 1% PER MONTH WILL BE CHARGED ON ACCOUNTS UNPAID 31 DAYS. ANNUAL RATE IS 18%.

CONTRACT PERFORMANCE	
EXPIRATION DATE	CURRENT MONTH
REQUIREMENT	CUMULATIVE

RETAIN FOR YOUR FILE

SUMMER IS NOW HERE AT LAST! REMEMBER FOR ALL YOUR "HOT" ADVERTISING NEEDS, GIVE US A CALL AT 270-726-8394! BE SURE TO WATCH FOR OUR LOGAN COUNTY GUIDE COMING YOUR WAY JULY 23, 1999!!!!!!

ACCOUNT NO.	INV/STAT. DATE	INVOICE/STMT. NO.
3912	06/30/99	223

TOTAL AMOUNT DUE
646.80

ENTER AMOUNT ENCLOSED
▼

ACCOUNT NAME
WESTERN KY GAS CO
NEWS DEMOCRAT & LEADER
P.O. BOX 270
120 PUBLIC SQUARE
RUSSELLVILLE, KY 42276

News-Democrat & LEADER

1007

(502) 726-8394 • FAX (502) 726-8398
 P.O. Box 270 • 120 Public Square • Russellville, KY 42276

ACCOUNT NAME

WESTERN KY GAS
 PO BOX 866
 OWENSBORO KY 42302-0866

ACCOUNT NO.	INV./STMT. DATE	INVOICE/STMT. NO.
3910	06/30/99	222
BILLING PERIOD		PAYMENT TERMS
JUNE 1999		NET 30 DAYS

1. News Democrat & Leader
2. The Logan Advertiser

ADVERTISER CLIENT NAME

WESTERN KY GAS

TRANS. DATE	P. U. B.	TRANS. CODE	CHARGE OR CREDIT DESCRIPTION / PRODUCT CODE	SAU / DIMENSIONS	BILLED UNITS	RATE	GROSS AMOUNT	NET AMOUNT	
6/18	1	ROP	NOTICE	6X 11.00	66.00	4.900	323.40	323.40	
			<p>323.40 WKB 10143 DEFER <i>Misc 2636</i> <i>7/12/99</i></p> <p><i>William J. ...</i></p> <p>Note: <i>7/16/99</i> <i>CR# 307638</i> <i>\$ 323.40</i></p>						
							<p>RECEIVED JUL 14 1999 ATMOS ENERGY ACCOUNTS PAYABLE</p>		

PREVIOUS BALANCE	PAYMENTS/CREDITS	AMT. SUB. TO SERVICE CHG.	SERVICE CHARGE	CURRENT GROSS AMT.	CURRENT NET AMOUNT
.00	.00	.00	.00	323.40	323.40

CASH DISCOUNTS	ACCOUNT STATUS				TOTAL NET AMOUNT DUE
	0-30 DAYS	31-60 DAYS	61-90 DAYS	OVER 90 DAYS	
.00	323.40	.00	.00	.00	323.40

THIS ACCOUNT IS DUE AND PAYABLE 30 DAYS FROM DATE OF INVOICE. A SERVICE CHARGE OF 1% PER MONTH WILL BE CHARGED ON ACCOUNTS UNPAID 31 DAYS. ANNUAL RATE IS 18%.

CONTRACT PERFORMANCE	
EXPIRATION DATE	CURRENT MONTH
REQUIREMENT	CUMULATIVE

RETAIN FOR YOUR FILE

SUMMER IS NOW HERE AT LAST! REMEMBER FOR ALL YOUR "HOT" ADVERTISING NEEDS, GIVE US A CALL AT 270-726-8394! BE SURE TO WATCH FOR OUR LOGAN COUNTY GUIDE COMING YOUR WAY JULY 23, 1999!!!!

ACCOUNT NO.	INV./STAT. DATE	INVOICE/STMT. NO.
3910	06/30/99	222

TOTAL AMOUNT DUE
 323.40

ENTER AMOUNT ENCLOSED ▼	ACCOUNT NAME
	WESTERN KY GAS NEWS DEMOCRAT & LEADER P.O. BOX 270 120 PUBLIC SQUARE RUSSELLVILLE, KY 42276

DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT



THE SENTINEL NEWS
PO BOX 399
SHELBYVILLE, KY 40066-0399

JUNE 1999 WESTERN KY GAS CO

16836

231 NET AMOUNT DUE		31 TERMS OF PAYMENT	
1173.69		PAYMENT DUE BY 7/30	
231 CURRENT NET AMOUNT DUE	221 30 DAYS	222 60 DAYS	223 OVER 90 DAYS
1173.69	.00	.00	.00

ADVERTISING INVOICE and STATEMENT

BILLED ACCOUNT NAME AND ADDRESS

REMITTANCE ADDRESS

WESTERN KY GAS CO
2401 NEW HARTFORD RD
OWENSBORO KY 42303-1312

THE SENTINEL NEWS
LANDMARK COMM. NEWSPAPERS
PO BOX 1118
SHELBYVILLE, KY 40066-1118

41 PAGE #	51 BILLING DATE	61 BILLED ACCOUNT NUMBER	71 ADVERTISER/CLIENT NUMBER
1	6/30/1999	019-760889	

Change of Address?
 Note changes
on reverse.

AMOUNT PAID \$

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

TO AVOID DELAYS IN CREDITING YOUR ACCOUNT, PLEASE RETURN THE
REMITTANCE STUB WITH YOUR PAYMENT IN THE SUPPLIED ENVELOPE
OR PRINT THE ACCOUNT NUMBER FROM THIS BILL ON YOUR CHECK.

10 DATE	11 REF.	12 13 14 DESCRIPTION-OTHER COMMENTS/CHARGES	151 SAU SIZE BILLED UNITS	152 TR	161 TIMES RUN RATE	171 TR	19 GROSS AMOUNT	20 DISC.	20 NET AMOUNT -
6/04		PREVIOUS BALANCE					.00		.00
6/09		LEGAL ADVERTISING	6X10.50				447.93	.00	447.93
6/16		LEGAL ADVERTISING	6X10.50		5.76		362.88	.00	362.88
		LEGAL ADVERTISING	6X10.50		5.76		362.88	.00	362.88
		TOTAL SENTINEL-NEWS					1173.69	.00	1173.69
		TOTAL DUE \$1173.69					1173.69	.00	1173.69

WKG 10143 DEFER *Mico* 2636
7/11/99

William J. Senf...

Notes:
7/16/99
CR# 307682

RECEIVED
JUL 14 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS IF TOTAL PAYMENT IS NOT RECEIVED BY DUE DATE, A SERVICE CHARGE OF 1.5% PER MONTH (18% ANNUAL PERCENTAGE RATE) WILL BE IMPOSED

231 CURRENT NET AMOUNT DUE	221 30 DAYS	222 60 DAYS	223 OVER 90 DAYS	GROSS AMOUNT DUE	231 NET AMOUNT DUE
1173.69	.00	.00	.00	1173.69	1173.69

FOR BILLING QUESTIONS:

THE SENTINEL-NEWS, PO BOX 399, SHELBYVILLE, KY 40066-0399
502-633-2526



251 BILLING PERIOD	61 BILLED ACCOUNT NUMBER	71 ADVERTISER/CLIENT NUMBER	21 ADVERTISER/CLIENT NAME
JUNE 1999	019-760889		WESTERN KY GAS CO
YEAR TO DATE DOLLARS	CONTRACT EXPIRATION	CONTRACT REQUIREMENTS	CONTRACT CURRENT MONTH
1579.49			

OWENSBORO MESSENGER-INQUIRER INC.
 1401 Frederica Street P. O. Box 1480
 Owensboro, KY 42302-1480
 Tel: (270) 926-0123 Ext. 7100
 FAX: (270) 684-3549
 FED ID#: 75-2588203
 DISPLAY ADVERTISING
 INVOICE and STATEMENT

06/01/99	06/30/99	WEST KY GAS	14382
TOTAL AMOUNT DUE		UNAPPLIED AMOUNT	TERMS
\$4,411.26			NET 15
CURRENT NET AMOUNT DUE	30 DAYS	60 DAYS	OVER 90 DAYS
\$4,411.26	\$0.00	\$0.00	\$0.00

ISSUE #	BILLING DATE	BILLED ACCOUNT NAME AND ADDRESS	REMITTANCE ADDRESS
1	06/30/99	WESTERN KENTUCKY GAS 2401 NEW HARTFORD RD OWENSBORO KY 42301	OWENSBORO MESSENGER-INQUIRER 1401 FREDERICA ST PO BOX 1480 OWENSBORO KY 42302-1480
BILLED ACCOUNT NUMBER			
WES006			
ADVERTISER CLIENT NUMBER			
WES006			

PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

DATE	NEWSPAPER REFERENCE	DESCRIPTION-OTHER COMMENTS/CHARGES	SAU SIZE BILLED UNITS	TIMES RUN RATE	GROSS AMOUNT	NET AMOUNT
06/04	40646201	BALANCE FORWARD			.00	
	RG	NOTICE OF PROPOSED CHANGES	3.0X	21.00"	1470.42	
06/11	40646202	NOTICE OF PROPOSED CHANGES	63.00IN	23.34	1470.42	
	RG	NOTICE OF PROPOSED CHANGES	3.0X	21.00"	1470.42	
06/18	40646203	NOTICE OF PROPOSED CHANGES	63.00IN	23.34	1470.42	
	RG	NOTICE OF PROPOSED CHANGES	3.0X	21.00"	1470.42	
			63.00IN	23.34		
TOTAL DUE					4,411.26	
PREVIOUS AMOUNT OWED:		.00				
NEW CHARGES THIS PERIOD:		4,411.26				
CASH THIS PERIOD:		.00				
DEBIT ADJUSTMENTS THIS PERIOD:		.00				
CREDIT ADJUSTMENTS THIS PERIOD:		.00				

WE APPRECIATE YOUR BUSINESS.						

RECEIVED
 JUL 08 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Note:
 7/12/99
 CR# 306444
 \$ 4411.26

040 0000 1860 4068 009000
 William J. Senter Jr

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS						SBI™
CURRENT NET AMOUNT DUE	30 DAYS	60 DAYS	OVER 90 DAYS	UNAPPLIED AMOUNT	TOTAL AMOUNT DUE	
\$4,411.26	\$0.00	\$0.00	\$0.00	.00	\$4,411.26	

OWENSBORO MESSENGER-INQUIRER, INC.						*UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE
1480, Owensboro, KY 42302-1480 (270) 926-0123 FAX (270) 684-3549 FED. ID#75-2588203						
BILLING PERIOD		BILLED ACCOUNT NUMBER		ADVERTISER CLIENT NUMBER		ADVERTISER CLIENT NAME
00005434	06/01/99 06/30/99	WES006	WES006	WEST KY GAS		

2F 6/11

NOTICE OF PROPOSED CHANGES IN GAS TARIFFS WHICH WILL RESULT IN INCREASED CHARGES

Notice is hereby given that Western Kentucky Gas Company ("Western"), a public utility furnishing natural gas service within the Commonwealth of Kentucky, on/or about the 28th day of May, 1999, pursuant to Kentucky Revised Statute 278.180 and the Rules of the Public Service Commission of Kentucky, respecting tariffs, filed its notice to the Kentucky Public Service Commission ("Kpsc"), proposing to change its gas rates effective July 1, 1999. The present rates charged in all territory served by Western are as follows:

Present Rates (Effective April 1, 1999)

Rate G - 1, General Sales Service

Monthly Base Charge:
 \$5.10 per meter for residential service
 \$13.60 per meter for non-residential

Commodity Charge
 First 300 Mcf or less per month \$3.5660 per 1,000 cubic feet
 Next 14,700 Mcf per month \$3.0630 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.9130 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate G - 1, High Load Factor Firm Sales Service

Monthly Base Charge:
 \$13.60 per meter for non-residential
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Commodity Charge
 First 300 Mcf or less per month \$3.0111 per 1,000 cubic feet
 Next 14,700 Mcf per month \$2.5081 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.3581 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate G-2, Interruptible Sales Service

Monthly Base Charge:
 \$150.00 per meter
 Commodity Charge
 First 15,000 Mcf or less per month \$2.4756 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.3256 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate LVS-1, Firm Sales Service

Monthly Base Charge:
 \$13.60 per meter
 Commodity Charge
 First 300 Mcf or less per month \$3.5916 per 1,000 cubic feet
 Next 14,700 Mcf per month \$3.0886 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.9386 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate LVS-1, High Load Factor Firm Sales Service

Monthly Base Charge:
 \$13.60 per meter for non-residential
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Commodity Charge
 First 300 Mcf or less per month \$3.0367 per 1,000 cubic feet
 Next 14,700 Mcf per month \$2.5337 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.3837 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate LVS-2, Interruptible Sales Service

Monthly Base Charge:
 \$150.00 per meter
 Commodity Charge
 First 15,000 Mcf or less per month \$2.4710 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$2.3210 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate T - 2 General Transportation Service

(Includes standby sales service under corresponding Sales rates)

Rate T-2/G-1, Firm Transportation with Firm Standby Sales Service

Monthly Base Charge:
 \$13.60 per meter
 \$45.00 Administration Charge
 Commodity Charge
 First 300 Mcf or less per month \$1.7902 per 1,000 cubic feet
 Next 14,700 Mcf per month \$1.2872 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$1.1372 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate T-2/G-1, High Load Factor Firm Service

Monthly Base Charge:
 \$13.60 per meter for non-residential
 \$45.00 Administration Charge
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Commodity Charge
 First 300 Mcf or less per month \$1.2353 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.7323 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.5823 per 1,000 cubic feet

Minimum Charge: The Base Charge

Rate T-2/G-2, Interruptible Transportation with Interruptible Standby Sales Service

Monthly Base Charge:
 \$150.00 per meter
 \$45.00 Administration Charge

Commodity Charge
 First 15,000 Mcf or less per month \$2.6008 per 1,000 cubic feet

Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas Charge, all Mcf \$2.5045 per 1,000 cubic feet

Rate G - 1, High Load Factor Firm Sales Service

Minimum Charge: The Base Charge
 Monthly Base Charge:
 \$24.00 per meter for non-residential
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas Charge, all Mcf \$1.9496 per 1,000 cubic feet

Rate G-2, Interruptible Sales Service

Monthly Base Charge:
 \$250.00 per meter
 Distribution Charge
 First 15,000 Mcf or less per month \$0.5300 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.3301 per 1,000 cubic feet
 Gas Charge, all Mcf \$1.9820 per 1,000 cubic feet

Rate LVS-1, Firm Sales Service

Monthly Base Charge:
 \$24.00 per meter
 Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas charge, all Mcf \$2.5301 per 1,000 cubic feet

Rate LVS-1, High Load Factor Firm Sales Service

Monthly Base Charge:
 \$24.00 per meter for non-residential
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas Charge, all MCF \$1.9752 per 1,000 cubic feet

Rate LVS - 2, Interruptible Sales Service

Monthly Base Charge:
 \$250.00 per meter
 Distribution Charge
 First 15,000 Mcf or less per month \$0.5300 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.3301 per 1,000 cubic feet
 Gas Charge, all Mcf \$1.9774 per 1,000 cubic feet

Rate T - 2, General Transportation Service

(Includes standby sales service under corresponding Sales rates)

Rate T-2/G-1, Firm Transportation with Firm Standby Sales Service

Monthly Base Charge:
 \$24.00 per meter
 \$50.00 Administration Charge
 Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas Charge, all Mcf \$0.7287 per 1,000 cubic feet

Rate T-2/G-1, High Load Factor Firm Service

Monthly Base Charge:
 \$24.00 per meter for non-residential
 \$50.00 Administration Charge
 Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand

Distribution Charge
 First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
 Gas Charge, all Mcf \$0.1738 per 1,000 cubic feet

Rate T-2/G-2, Interruptible Transportation with Interruptible Standby Sales Service

Monthly Base Charge:

408 KENTUCKY AVENUE
P.O. BOX 2300
PADUCAH, KY 42002-2300
PHONE (502) 575-8623

17.001

BILLING DATE	TERMS OF PAYMENT
06/30/99	30 days

BILLED ACCOUNT
WESTERN KY GAS IOWEN 2401 NEW HARTFORD RD OWENSBORO, KY 42303-1312

BILLED ACCOUNT NO	AGENCY / CLIENT
05100404-000	
NAME OF AGENCY / CLIENT	

DATE	REFERENCE	CHARGE OR CREDITS DESCRIPTION	INS	SAU DIMENSIONS	BILLED UNITS	RATE	AMOUNT	TOTAL
06/05/99	09505382-001	01 - 47411 NOTICE OF	1	6x10.50	63.00 in	22.39	1410.57	1410.5
06/09/99	09505734-001	01 - 47411 NOTICE OF	1	6x10.50	63.00 in	22.39	1410.57	2821.1
06/16/99	09505735-001	01 - 47411 NOTICE OF	1	6x10.50	63.00 in	22.39	1410.57	4231.7

040 0008 1860 14068 009000
William S. Smith Jr

RECEIVED

JUL 08 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

NOTE:
7/12/99
CPH 306446
4231.71

CURRENT	AGING			
	1-30 DAYS	31-60 DAYS	61-90 DAYS	OVER 90 DAYS
4231.71	0.00	0.00	0.00	0.00

TOTAL NET AMOUNT DUE
4231.71

PLEASE RETURN THIS PORTION WITH YOUR REMITTANCE

If you desire to charge this amount to your credit card, please complete the following information and return to the address above: [] VISA [] Mastercard

Acct# _____ Exp Date _____

Signature _____

BILLED ACCOUNT NO	BILLED ACCOUNT NAME	AMOUNT REMITTED
05100404-000	WESTERN KY GAS IOWEN	

REMIT TO

The Paducah Sun
P.O. Box 2300
Paducah, Ky. 42002-2300

OUR TERMS ARE NET 30 DAYS
Payment in full is due upon receipt of the statement

REMITTANCE ADVICE

Notice is hereby given that Western Kentucky Gas Company ("Western"), a public utility furnishing natural gas service within the Commonwealth of Kentucky, on or about the 28th day of May 1999, pursuant to Kentucky Revised Statute 278.180 and the Rules of the Public Service Commission of Kentucky, respecting tariffs, filed its notice to the Kentucky Public Service Commission ("KPSC"), proposing to change its gas rates effective July 1, 1999. The present rates charged in all territory served by Western are as follows:

Present Rates
(Effective April 1, 1999)

Rate G - 1, General Sales Service

Monthly Base Charge:
\$5.10 per meter for residential service
\$13.60 per meter for non-residential
Commodity Charge
First 300 Mcf or less per month \$3.5660 per 1,000 cubic feet
Next 14,700 Mcf per month \$3.0630 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.9130 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate G - 1, High Load Factor Firm Sales Service

Monthly Base Charge:
\$13.60 per meter for non-residential
Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand
Commodity Charge
First 300 Mcf or less per month \$3.0111 per 1,000 cubic feet
Next 14,700 Mcf per month \$2.5081 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.3581 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate G-2, Interruptible Sales Service

Monthly Base Charge:
\$150.00 per meter
Commodity Charge
First 15,000 Mcf or less per month \$2.4756 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.3258 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-1, Firm Sales Service

Monthly Base Charge:
\$13.60 per meter
Commodity Charge
First 300 Mcf or less per month \$3.5916 per 1,000 cubic feet
Next 14,700 Mcf per month \$3.0886 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.9386 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-1, High Load Factor Firm Sales Service

Monthly Base Charge:
\$13.60 per meter for non-residential
Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand
Commodity Charge
First 300 Mcf or less per month \$3.0367 per 1,000 cubic feet
Next 14,700 Mcf per month \$2.5337 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.3837 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-2, Interruptible Sales Service

Monthly Base Charge:
\$150.00 per meter
Commodity Charge
First 15,000 Mcf or less per month \$2.4710 per 1,000 cubic feet
Over 15,000 Mcf per month* \$2.3210 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate T-2 General Transportation Service

(Includes standby sales service under corresponding Sales rates)

Rate T-2/G-1, Firm Transportation with Firm Standby Sales Service

Monthly Base Charge
\$13.60 per meter
\$45.00 Administration Charge
Commodity Charge
First 300 Mcf or less per month \$1.7902 per 1,000 cubic feet
Next 14,700 Mcf per month \$1.2872 per 1,000 cubic feet
Over 15,000 Mcf per month* \$1.1372 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate T-2/G-1, High Load Factor Firm Service

Monthly Base Charge:
\$13.60 per meter for non-residential
\$45.00 Administration Charge
Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand
Commodity Charge
First 300 Mcf or less per month \$1.2353 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.7323 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.5823 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate T-2/G-2, Interruptible Transportation with Interruptible Standby Sales Service

Monthly Base Charge:
\$150.00 per meter

\$45.00 Administration Charge

Commodity Charge
First 15,000 Mcf or less per month \$0.6998 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.5498 per 1,000 cubic feet

Rate T-3, Interruptible Carriage Service

Transportation only service
Monthly Base Charge:
\$150.00 per meter
\$45.00 Administration Charge
Commodity Charge
First 15,000 Mcf or less per month \$0.4936 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.3436 per 1,000 cubic feet

Rate T-4, Firm Carriage Service

Transportation only service
Monthly Base Charge:
\$150.00 per meter
\$45.00 Administration Charge
Commodity Charge
First 300 Mcf or less per month \$1.0615 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.5585 per 1,000 cubic feet
Over 15,000 Mcf per month \$0.4085 per 1,000 cubic feet

Special Charges

Turn on new service with meter set \$28.00
Turn on service, shut in test required \$18.00
Turn on service, meter read only required \$10.00
Reconnect delinquent service No Charge
Reconnect service off temporarily at customer request \$25.00
Termination or field collection charge \$ 5.00
Meter test charge \$20.00
Returned check charge \$15.00
Optional facilities charge for Electronic Flow Measurement
Class 1 E FM \$105 per month
Class 2 E FM \$210 per month

Proposed Rates

Rate G - 1, General Sales Service

Monthly Base Charge:
\$9.00 per meter for residential service
\$24.00 per meter for non-residential
Distribution Charge
First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
Gas Charge, all Mcf \$2.5045 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate G - 1, High Load Factor Firm Sales Service

Monthly Base Charge:
\$24.00 per meter for non-residential
Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand
Distribution Charge
First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
Gas Charge, all Mcf \$1.9496 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate G-2, Interruptible Sales Service

Monthly Base Charge:
\$250.00 per meter
Distribution Charge
First 15,000 Mcf or less per month \$0.5300 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.3301 per 1,000 cubic feet
Gas Charge, all Mcf \$1.9820 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-1, Firm Sales Service

Monthly Base Charge:
\$24.00 per meter
Distribution Charge
First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
Gas Charge, all Mcf \$2.5301 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-1, High Load Factor Firm Sales Service

Monthly Base Charge:
\$24.00 per meter for non-residential
Demand Charge \$4.2809 per 1,000 cubic feet of Daily Contracted Demand
Distribution Charge
First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet
Gas Charge, all Mcf \$1.9752 per 1,000 cubic feet
Minimum Charge: The Base Charge

Rate LVS-2, Interruptible Sales Service

Monthly Base Charge:
\$250.00 per meter
Distribution Charge

607 West Washington St. P.O. Box 439
 Princeton, Kentucky 42445-0439

Princeton
 Phone 502-365-5588
 Fax 502-365-7299

Hopkinsville
 Phone 502-885-7667
 Fax 502-887-3222

17124
 INVOICES
 STATEMENT NUMBER

ACCOUNT NUMBER	DATE	INVOICES STATEMENT NUMBER
2865	06/30/99	688

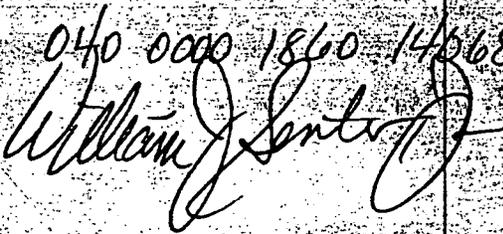
WESTERN KENTUCKY GAS
 2401 NEW HARTFORD ROAD
 OWENSBORO, KENTUCKY 42303-1312

CHARGE OPTIONS

I AUTHORIZE YOU TO CHARGE MY

VISA 
 MC 
 TOTAL
 ACCT# EXP DATE

SIGNATURE _____ DATE _____

TRANS/POSTING DATE	TRANSACTION DESCRIPTION	INCHES	LINES	RATE	CHARGES	CREDITS
06/02	TARIFF CHANGES-N/C	72	00	.000	.00	
06/02	TARIFF CHANGES-N/C	168	00	.000	.00	
06/05	TARIFF CHANGES	168	00	2.450	411.60	
06/09	TARIFF CHANGES	168	00	2.450	411.60	
06/16	CHANGE IN TARIFFS	168	00	2.450	411.60	
<i>040 0000 1860 14068 009000</i> 		RECEIVED JUL 08 1999 ATMOS ENERGY ACCOUNTS PAYABLE				
***** PLEASE REMIT PAYMENT BY THE 10TH OF EACH MONTH. IF YOU HAVE ANY QUESTIONS REGARDING YOUR BILL, CALL JENNIFER AT 270-365-5588. THANK YOU FOR YOUR BUSINESS! *****						
TOTALS		744	00	0		

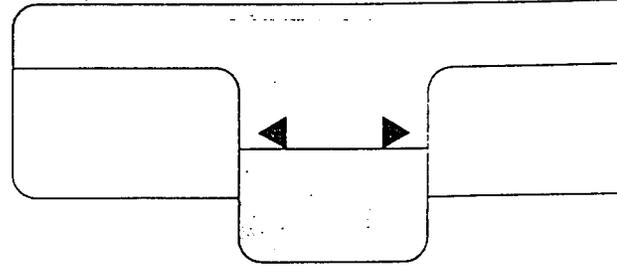
Notes
 7/14/99
 CR # 306517 #1265 & 2

PREVIOUS BALANCE	PAYMENTS/CREDITS	AMOUNT SUBJECT TO FINANCE CHARGE	SERVICE CHARGE	NEW CHARGES	TOTAL AMOUNT DUE
30.32	.00	30.32	.50	1234.80	1,265.62

ACCOUNT STATUS				
CURRENT	30 DAYS	60 DAYS	90 DAYS & OVER	
1235.30	30.32	.00	.00	

CHARGES AND PAYMENTS MADE AFTER THE LAST DAY OF THE STATEMENT MONTH WILL BE REFLECTED ON YOUR NEXT STATEMENT. A 1 1/2 % FINANCE CHARGE WILL BE ADDED EACH MONTH TO BALANCES DUE OVER 30 DAYS. AN ANNUAL RATE OF 18% (A MINIMUM CHARGE OF 50¢).

REMITTANCE COPY



LEGAL NOTICES

LEGAL NOTICES

LEGAL NOTICES

LEGAL NOTICES

Special Charges

Turn on new service with meter set	\$28.00
Turn on service, shut in test required	\$18.00
Turn on service, meter read only required	\$10.00
Reconnect delinquent service	No Charge
Reconnect service off temporarily at customer request	\$25.00
Termination or field collection charge	\$ 5.00
Meter test charge	\$20.00
Returned check charge	\$15.00
Optional facilities charge for Electronic Flow Measurement	
Class 1 E FM	\$105 per month
Class 2 E FM	\$210 per month

Proposed Rates**Rate G-1, General Sales Service****Monthly Base Charge:**

\$9.00 per meter for residential service
 \$24.00 per meter for non-residential

Distribution Charge

First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet

Gas Charge, all Mcf

\$2.5045 per 1,000 cubic feet

Minimum Charge: The Base Charge**Rate G - 1, High Load Factor Firm Sales Service****Monthly Base Charge:**

\$24.00 per meter for non-residential
 Demand Charge

\$4.2809 per 1,000 cubic feet of
Daily Contracted Demand**Distribution Charge**

First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet

Gas Charge, all Mcf

\$1.9496 per 1,000 cubic feet

Minimum Charge: The Base Charge**Rate G-2, Interruptible Sales Service****Monthly Base Charge:**

\$250.00 per meter

Distribution Charge

First 15,000 Mcf or less per month \$0.5300 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.3301 per 1,000 cubic feet

Gas Charge, all Mcf

\$1.9820 per 1,000 cubic feet

Minimum Charge: The Base Charge**Rate LVS-1, Firm Sales Service****Monthly Base Charge:**

\$24.00 per meter

Distribution Charge

First 300 Mcf or less per month \$1.2000 per 1,000 cubic feet
 Next 14,700 Mcf per month \$0.6946 per 1,000 cubic feet
 Over 15,000 Mcf per month* \$0.4299 per 1,000 cubic feet

Gas charge, all Mcf

\$2.5301 per 1,000 cubic feet

Minimum Charge: The Base Charge**Rate LVS-1, High Load Factor Firm Sales Service****Monthly Base Charge:**

\$24.00 per meter for non-residential

Demand Charge\$4.2809 per 1,000 cubic feet of
Daily Contracted Demand



Since 1909
Printing and Advertising Specialties
301 Hale Avenue • Owensboro, KY 42301
(270) 684-2324

INVOICE NUMBER: V992068-IN
INVOICE DATE: 05/28/99
ORDER NUMBER:
ORDER DATE:
SALESPERSON: 0010
CUSTOMER NO: 00-0015880

RECEIVED

JUN 04 1999

SOLD TO:
WESTERN KENTUCKY GAS
ATTN: ACCOUNTING DEPT
2401 NEW HARTFORD ROAD
OWENSBORO KY 42303-1312

SHIP TO:
ATMOS ENERGY
ACCOUNTS PAYABLE

WESTERN KENTUCKY GAS
ATTN: ACCOUNTING DEPT
2401 NEW HARTFORD ROAD
OWENSBORO KY 42303-1312

CUSTOMER P.O. SHIP VIA F.O.B. TERMS
TOM HIGDON NET 30 DAYS

ITEM	UNIT	QTY ORDERED	QTY SHIPPED	PRICE	AMOUNT
/BOOKLETS RATE HIKE APPLICATION VOL IX	1000	0.025	0.025	0.000 4,097.200	102.43
/BOOKLETS RATE HIKE APPLICATION VOL X	1000	0.025	0.025	0.000 8,229.600	205.74

Note:

7/8/99

CR# 305742

\$ 4042.61

William J. Senty

1860 14068 009000

WKG 10143 defev

Misc

WKG 2636

NET INVOICE: 3,813.78

FREIGHT: .00
SALES TAX: 228.83

INVOICE TOTAL: 4,042.61

PLEASE PAY FROM INVOICE!
STATEMENT MAILED UPON REQUEST.



Since 1909
 Printing and Advertising Specialties
 301 Hale Avenue • Owensboro, KY 42301
 (270) 684-2324

INVOICE NUMBER: V992068-IN
 INVOICE DATE: 05/28/99
 ORDER NUMBER:
 ORDER DATE:
 SALESPERSON: 0010
 CUSTOMER NO: 00-0015880

SOLD TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

SHIP TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

CUSTOMER P.O. SHIP VIA F.O.B. TERMS
 TOM HIGDON NET 30 DAYS

ITEM	UNIT	QTY ORDERED	QTY SHIPPED	PRICE	AMOUNT
/BOOKLETS RATE HIKE APPLICATION VOL I	1000	0.025	0.025	0.000 14,775.600	369.39
/BOOKLETS RATE HIKE APPLICATION VOL II	1000	0.025	0.025	0.000 13,715.200	342.88
/BOOKLETS RATE HIKE APPLICATION VOL III	1000	0.025	0.025	0.000 4,426.400	110.66
/BOOKLETS RATE HIKE APPLICATION VOL IV	1000	0.025	0.025	0.000 17,920.400	448.01
/BOOKLETS RATE HIKE APPLICATION VOL V	1000	0.025	0.025	0.000 19,250.800	481.27
/BOOKLETS RATE HIKE APPLICATION VOL VI	1000	0.025	0.025	0.000 33,878.800	846.97
/BOOKLETS RATE HIKE APPLICATION VOL VII	1000	0.025	0.025	0.000 21,225.600	530.64
/BOOKLETS RATE HIKE APPLICATION VOL VIII	1000	0.025	0.025	0.000 15,031.600	375.79

NET INVOICE:

FREIGHT:
 SALES TAX:

INVOICE TOTAL:

CONTINUED

PLEASE PAY FROM INVOICE!
 STATEMENT MAILED UPON REQUEST.



Since 1909
 Printing and Advertising Specialties
 301 Hale Avenue • Owensboro, KY 42301
 (270) 684-2324

INVOICE NUMBER: V992250-IN
 INVOICE DATE: 06/15/99
 ORDER NUMBER:
 ORDER DATE:
 SALESPERSON: 0010
 CUSTOMER NO: 00-0015880

SOLD TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

SHIP TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

CUSTOMER P.O. TDM HIGDON	SHIP VIA	F.O.B.	TERMS NET 30 DAYS
------------------------------------	-----------------	---------------	-----------------------------

ITEM	UNIT	QTY ORDERED	QTY SHIPPED	PRICE	AMOUNT
/BOOKLETS RATE INCREASE MANUAL VOL IX	1000	0.005	0.005	4,098.000	20.49
/BOOKLETS RATE INCREASE MANUAL VOL X	1000	0.005	0.005	8,230.000	41.15

040 0000 1860 14068 009000
 William J. Smith Jr.

RECEIVED
 JUL 08 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Note:
 7/12/99
 CR# 306464
 # 808.53

NET INVOICE:	762.76
FREIGHT:	.00
SALES TAX:	45.77
INVOICE TOTAL:	808.53

PLEASE PAY FROM INVOICE!
 STATEMENT MAILED UPON REQUEST.



Since 1909
 Printing and Advertising Specialties
 301 Hale Avenue • Owensboro, KY 42301
 (270) 684-2324

INVOICE NUMBER: V992250-IN
 INVOICE DATE: 06/15/99
 ORDER NUMBER:
 ORDER DATE:
 SALESPERSON: 0010
 CUSTOMER NO: 00-0015880

SOLD TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

SHIP TO:
 WESTERN KENTUCKY GAS
 ATTN: ACCOUNTING DEPT
 2401 NEW HARTFORD ROAD
 OWENSBORO KY 42303-1312

CUSTOMER P.O. SHIP VIA F.O.B. TERMS
 TOM HIGDON NET 30 DAYS

ITEM	UNIT	QTY ORDERED	QTY SHIPPED	PRICE	AMOUNT
/BOOKLETS RATE INCREASE MANUAL VOL I	1000	0.005	0.005	0.000 14,776.000	73.88
/BOOKLETS RATE INCREASE MANUAL VOL II	1000	0.005	0.005	0.000 13,716.000	68.58
/BOOKLETS RATE INCREASE MANUAL VOL III	1000	0.005	0.005	0.000 4,426.000	22.13
/BOOKLETS RATE INCREASE MANUAL VOL IV	1000	0.005	0.005	0.000 17,920.000	89.60
/BOOKLETS RATE INCREASE MANUAL VOL V	1000	0.005	0.005	0.000 19,250.000	96.25
/BOOKLETS RATE INCREASE MANUAL VOL VI	1000	0.005	0.005	0.000 33,878.000	169.39
/BOOKLETS RATE INCREASE MANUAL VOL VII	1000	0.005	0.005	0.000 21,226.000	106.13
/BOOKLETS RATE INCREASE MANUAL VOL VIII	1000	0.005	0.005	0.000 15,032.000	75.16

NET INVOICE:

FREIGHT:
 SALES TAX:

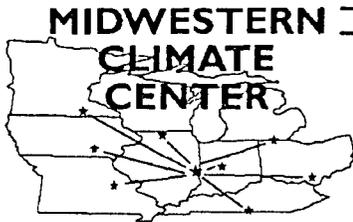
INVOICE TOTAL:

CONTINUED

PLEASE PAY FROM INVOICE!
 STATEMENT MAILED UPON REQUEST.

Invoice 55218 Job #:991685

Invoice Date:02/03/99



2204 Griffith Drive
Champaign, IL 61820
Ph: (217) 244-8226
Fax: (217) 244-0220

Email: requests@mcc.sws.uiuc.edu

Ship to:

William Senter
Western Kentucky Gas Co.
2401 New Hartford Rd.
Owensboro, KY 42303

Sold to:

William Senter
Western Kentucky Gas Co.
2401 New Hartford Rd.
Owensboro, KY 42303

Salesperson: Karin Gleason
Client Phone: 502-685-8072
Client Fax: - -

Quantity	Description	Unit Cost	Total
1.00	Daily	\$ 50.00	\$ 50.00
1.00	FTP File	\$ 5.00	\$ 5.00
1.00	Standard handling fee	\$ 10.00	\$ 10.00
*** TOTAL ***			\$ 65.00

*** Payment due within 30 days of invoice date ***

Invoice notes:

Daily heating/cooling degree days for Paducah, Louisville, Lexington, Danville and Madisonville, Kentucky during January 1960 - January 1999.

Client Case Number:

ref: Kentucky Weather

Normalization

Tax ID number: 37-6000-511

Deposit in revolving account: 1-3-10943

Note:
3/4/99
CR#188134

William Senter
1860 7 0021 09

RECEIVED

MAR 03 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

5cc - Make check payable to "University of Illinois/ISWS" and send to:

Illinois State Water Survey
2204 Griffith Drive
Champaign, IL 61820-7495

For more information about the Midwestern Climate Center and products, check out our Web page: <http://mcc.sws.uiuc.edu/>

Customer copy Return with remittance Accounting

The Midwestern Climate Center is a cooperative program of the Illinois State Water Survey (Illinois Department of Natural Resources) and the National Climatic Data Center (National Oceanic and Atmospheric Administration, U.S. Department of Commerce)

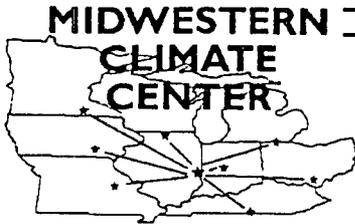
19/99

55218

Invoice

Job #:991888

Invoice Date:02/23/99



2204 Griffith Drive
 Champaign, IL 61820
 Ph: (217) 244-8226
 Fax: (217) 244-0220
 Email: requests@mcc.sws.uiuc.edu

Ship to:

William Senter
 Western Kentucky Gas Co.
 2401 New Hartford Rd.
 Owensboro, KY 42303

Sold to:

William Senter
 Western Kentucky Gas Co.
 2401 New Hartford Rd.
 Owensboro, KY 42303

Salesperson: Karin Gleason
 Client Phone: 502-685-8072
 Client Fax: - -

Quantity	Description	Unit Cost	Total
1.00	Daily	\$ 20.00	\$ 20.00
1.00	FTP File	\$ 5.00	\$ 5.00
1.00	Standard handling fee	\$ 10.00	\$ 10.00
*** TOTAL ***			\$ 35.00

***** Payment due within 30 days of invoice date *****

Invoice notes:

Daily heating/cooling degree days for Evansville, Indiana and Nashville, Tennessee.
 Client Case Number:

Tax ID number: 37-6000-511
 Deposit in revolving account: 1-3-10943

Note:
 3/04/99
 CR#188134
 \$35.00

William Senter Jr.
 1860 7 0021 09

RECEIVED
 MAR 03 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Make check payable to "University of Illinois/ISWS" and send to:

Illinois State Water Survey
 2204 Griffith Drive
 Champaign, IL 61820-7495

For more information about the Midwestern Climate Center and products, check out our Web page: <http://mcc.sws.uiuc.edu/>

Customer copy Return with remittance Accounting

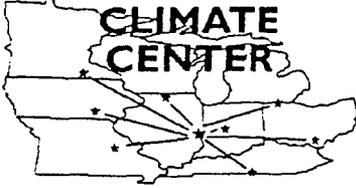
Invoice

Job #:991943

Invoice Date:03/02/99

55218

**MIDWESTERN
CLIMATE
CENTER**



2204 Griffith Drive
Champaign, IL 61820
Ph: (217) 244-8226
Fax: (217) 244-0220
Email: mcc@sws.uiuc.edu

Ship to:

William Senter
Western Kentucky Gas Co.
2401 New Hartford Rd.
Owensboro, KY 42303

Sold to:

William Senter
Western Kentucky Gas Co.
2401 New Hartford Rd.
Owensboro, KY 42303

Salesperson: Karin Gleason
Client Phone: 502-685-8072
Client Fax: - -

Quantity	Description	Unit Cost	Total
1.00	Monthly	\$ 50.00	\$ 50.00
1.00	FTP File	\$ 5.00	\$ 5.00
1.00	Standard handling fee	\$ 10.00	\$ 10.00
*** TOTAL ***			\$ 65.00

***** Payment due within 30 days of invoice date *****

Invoice notes:

Monthly heating and cooling degree days during 1961 - 1990 for Evansville, Indiana; Paducah, Kentucky; Louisville, Kentucky; Lexington, Kentucky; and Nashville, Tennessee.

Client Case Number:

Tax ID number: 37-6000-511

Deposit in revolving account: 1-3-10943

RECEIVED

MAR 08 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

Note:
3/09/99
CR#188929
\$ 6500

William J. Senter
1860 9 0021 09

Make check payable to "University of Illinois/ISWS" and send to:

Illinois State Water Survey
2204 Griffith Drive
Champaign, IL 61820-7495

For more information about the Midwestern Climate Center and products, check out our Web page: <http://mcc.sws.uiuc.edu/>

Customer copy

Return with remittance

Accounting



P.O. BOX 548 OWENSBORO KENTUCKY 42302
TELEPHONE 502-687-2770

1007
Invoice

DATE **INVOICE #**

05/28/99 990510F-IN

RECEIVED

JUN 03 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

BILL TO:

WESTERN KENTUCKY GAS
2401 NEW HARTFORD ROAD
Owensboro KY 42303

CUSTOMER NO: 80-WKGJP

JACKIE PURCELL

MEETING

P.O. NUMBER TERMS PROJECT

NET 30

SALES CODE DESCRIPTION RATE AMOUNT

SALES CODE	DESCRIPTION	RATE	AMOUNT
02	ROOM RENTAL - CIVIC USE		100.00
08	TABLE CLOTHS/SKIRTING		8.85
09	CONCESSIONS - BEVERAGES		175.30
10	CONCESSIONS - LABOR		30.00
13	CONCESSIONS - SALES TAX		10.52

1860 14068 009000

William J. Senter Jr.

Project
WKG 10143

Task
Defen

Expenditure Type
Meals + Entertainment

Expenditure
Org.
WKG 2636

Note.

7/8/99

CRH 305756

32467

TOTAL

324.67

afeguard

RECEIVED

MAY 28 1999

AIMUS ENERGY
 ACCOUNTS PAYABLE

TO: Western Ky Gas
 P. O. Box 866
 Owensboro KY 42302
 Attn: Pearl Simon

Statement Date: May 18, 1999

Account No. E0063BE

Date	Description	Folio No.	Debit	Credit	Balance
✓ 5-10-99	Hughes, Jack	BE53270	67.69		
✓ 5-10-99	Buchanan, Becky	BE53116	67.69		
✓ 5-11-99	Webster, Joan	BE53114	67.69		
5-14-99	Matthews, Jerry	BE53113	270.76		
5-14-99	Owen, Tim	BE53112	270.76		
5-14-99	Vaughn, Sherri	BE53111	284.16		
5-14-99	Kirby, Clay	BE53110	286.97		
5-14-99	Benningfield, Ronnie	BE53109	270.76		
5-14-99	Teater, George	BE53108	270.76		
5-14-99	Mills, Dick	BE53107	270.76		
5-14-99	Clark, Mike	BE53106	270.76		
5-14-99	Wheatley, Pam	BE53105	270.76		
5-14-99	Tucker, Eddie	BE53043	270.76		
5-14-99	Berry, Tom	BE52767	338.45		
5-18-99	Madere, Jenny	BE53620	67.69		

135.38 1860 14068 009000
 3143.35 ATM 10080 39908 Lodging
 67.69 10117 39908 "

WKG 10143 Defen WKG 2636
 EXP ORG

Total Amount Due \$3346.42
 ATM-DAL-CIS PROJECT 1202

Tom W. Hyle

Please remit to: Owensboro Fairfield Inn
 800 Salem Drive
 Owensboro, KY 42303

Thank you for choosing the Owensboro Fairfield Inn.

Notes
 7/8/99
 CR# 305130
 3346.42



2840 W. Parrish Avenue • Owensboro, KY 42301
 Ph. (270) 684-8143 • FAX (270) 684-8105
 www.moonlite.com

14888

Catering Invoice

DATE: 6/22/99 INVOICE: 1272

BILL TO:

Western Kentucky Gas

DELIVER TO:

Office Complex
 New Hartford Road

Duplicate

TERMS: CHARGE #7 VEHICLE: DELIVERY PERSON: KENNY DEPARTURE TIME: TUES 5:30 PM DELIVERY TIME: Be There 5:40 PM

QUANTITY	DESCRIPTION	RATE	AMOUNT
----------	-------------	------	--------

25	Guests Dinner Delivered		0.00T
	Delivery Delivery & Set Up Charge	10.00	10.00T
	Alum Pans:		
6	Lbs. Sliced Mutton	8.55	51.30T
6	Lbs. Sliced Pork	7.95	47.70T
8	Lbs. Potato Salad	2.29	18.32T
6	Lbs. Baked Beans	2.29	13.74T
2	Dz Buns	1.89	3.78T
1	Each White Bread	1.79	1.79T
1	Each Rye Bread	1.89	1.89T
1	SM PAN Pickle Slices	1.50	1.50T
1	SM PAN Onion Slices	1.50	1.50T
8	Lbs. Banana Pudding	2.89	23.12T
	Pt BBQ Sauce		
	Small Bottle Hot Sauce		
	Disposable Utensils		
	NO DRINKS		
	NO PNF		
	Sales Tax	6.00%	10.48

RECEIVED
 JUL 21 1999
 ATMOS ENERGY
 ACCOUNTS PAYABLE

Ready In Bldg on Court

Note:
 7/23/99
 CR# 509390

Regional Rate Case Mtg
 WKG 10143 ~~DRINKS~~ DEFER Meals Shared Services
 Tom W. Dye

Thank You. We appreciate your business.

TOTAL \$185.12

\$185.12

49999

Ladderbacks Restaurant

INVOICE

118 W. Second St.
Owensboro, Ky. 42301
Federal ID # 61-1309831

926-7414

SOLD TO:

Western Kentucky Gas Co.

INVOICE NUMBER 032399-1
INVOICE DATE 03/23/99
OUR ORDER NUMBER
YOUR ORDER NUMBER
TERMS 7days
SALES REP
SHIPPED VIA
F.O.B.
BILLED yes

SHIPPED TO:

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
22	Grilled Prok Chops, Fried Catfish, mashed potatoes and gravy, green beans, cole slaw and corn bread	6.95	\$152.90
<p>\$186.39 1860 7 0021 09</p> <p>Rate base Review Mtg</p> <p>William J. Lentz Jr</p>			
		SUBTOTAL	152.90
		TAX	9.18
		GRATUITY	24.31
			\$162.08

RECEIVED
MAR 25 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

Questions concerning this invoice?
Call: John W. Burton
Matt P. Burton

MAKE ALL CHECKS PAYABLE TO:
Ladderbacks
118 W. Second St.
Owensboro, Ky. 42301
Fax # 926-7588

PHONE# 926-7414

\$162.08
PAY THIS
AMOUNT

THANK YOU FOR YOUR BUSINESS!

Note:
3/26/99
CP# 193186
\$162.08

32646

INVOICE # 961 **DATE** 3-22-99

CUSTOMER Western Ky Gas **SALESPERSON** Stacy 5336

ADDRESS 2401 New Hartford Rd.

CITY OWENSBORO **STATE** Ky **ZIP** 42303

CUSTOMER'S ORDER # A1th: Jackie **Purchaser's Exemption #**



P.O. Box 22473
Owensboro, KY 42304

QUANTITY ORDERED	DESCRIPTION	UNIT PRICE	AMOUNT
4 DOZEN	COOKIES . assorted	4 29	18 19
			17 16
	1860 7 0021 09		
	Rate Case Review Meeting		
	<i>William J. Lentine</i>		

RECEIVED
MAR 25 1999
ATMOS ENERGY
ACCOUNTS PAYABLE

NET 10 DAYS. PLEASE PAY FROM THIS INVOICE.

RECEIVED BY *William J. Lentine*

SUBTOTAL		
SALES TAX		
PLEASE PAY THIS AMOUNT		

Note
3/26/99
CR# 193041
\$ 18.19

25106

Hometown Supermarkets

2304-2200 • (502) 684-9952

* YOUR BUSINESS IS *
* APPRECIATED *

WETZEL'S SUPER MARKET
15TH STREET AT US 231
LOUISVILLE KY
THANK YOU

MON 4/12/99 11:47AM

10.00 TF
\$2.50 2.99 TF

SLSTAX .78
TOTAL \$13.77
MISCTD \$13.77
CHANGE \$.00

5 ITEMS

NAME RUTHIE † 30 0004-0004 9195

RECEIVED

APR 14 1999

ATMOS ENERGY
ACCOUNTS PAYABLE

1860 70031 09

William J. Smith Jr.

Note:
4/15/99
CR# 191013
1377

Received by: _____

25106

(Charges)

Wetzel's

Owensboro's Hometown Supermarkets

Office: P.O. Box 22200 • Owensboro, Kentucky 42304-2200 • (502) 684-9952

Date _____ 19 99

M Western Ky Gas

Address 2701 New Hartford Rd.

Bill To: Same

CASH

CHARGE

Tax No. _____

Make Duplicate

<i>Lukow</i>		<i>7.95</i>
RECEIVED		
APR 26 1999		
ATMOS ENERGY ACCOUNTS PAYABLE		
<i>1860 7 0021 09</i>		
<i>Rate Case Review Mtg</i>		
<i>William Smith Jr</i>		
<i>William Smith Jr</i>		<i>7.95</i>

Note:
4/27/99
CR# 199351
\$9.95

Received by: _____

**Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 39 b
Witness: Adams**

Data Request:

A detailed explanation of how the estimate shown on Schedule F-6 was determined, with all supporting workpapers and calculations.

Response:

See attached schedule entitled, "WKG Rate Case Expenses – Case. No. 99-070", which summarizes the estimation of rate case expenses.

WKG Rate Case Expenses - Case. No. 99-070

Total Expense to be amortized over three years

DR# 39b
FR 10(10)(f)
Workpaper

	<u>Ave.\$/hr</u>	<u>Est. hrs</u>		<u>Total \$</u>
Consulting				
-Deloitte & Touche	\$250	280	\$ 70,000	
-Lukens	225	349	\$ 78,500	
-Guernsey	130	154	\$ 20,000	
-AEG	160	116	\$ 18,500	
-UEC	125	96	<u>\$ 12,000</u>	
				\$ 199,000
Legal	<u>Ave.\$/hr</u>	<u>Est. hrs</u>		
-Hutchinson	125	200	\$ 25,000	
-Hughes	185	300	<u>\$ 45,000</u>	
				\$ 70,000
Employee Expense	<u>Ave.\$/trip</u>	<u>Est. trips</u>		
- airfare	\$750	36	\$ 27,000	
-car rentals	\$75	20	<u>\$ 1,500</u>	
				\$ 28,500
Lodging	<u>Ave.\$/stay</u>	<u>Est. stays</u>		
	\$80	75		\$ 6,000
Meals	<u>Ave.\$/day</u>	<u>Est. days</u>		
	\$50	130		<u>\$ 6,500</u>
				\$ 41,000
Miscellaneous (printing, advertising)				
-printing			\$ 5,000	
-advertising (assumes abbreviated public notice)			<u>\$ 15,000</u>	
				<u>\$ 20,000</u>
Total Rate Case				\$ 330,000

Western Kentucky Gas Company
Case No. 99-070
KPSC Data Request Dated July 16, 1999
DR Item 39 c
Witness: Adams

Data Request:

- c. Monthly updates of the actual costs incurred during the course of this proceeding, in the manner prescribed above. Updates will be due on September 3, 1999 (Western's due date for responses to additional data requests), November 1, 1999 (due date for requests to Intervenors), and 30 days after the date of the public hearing or the due date for final briefs, whichever date is later.

Response:

- c. Western will provide updates per the schedule indicated.